



**“Identifying and managing the impact of
NeuroLeadership during organisational
change”**

by

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Thesis

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DECLARATION

I declare that Identifying and managing the impact of NeuroLeadership during organisational change is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

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DEDICATION

As with many of life's challenges, this thesis has been a journey that I had to take alone. However, it would not have been possible without my Saviour and Lord Jesus Christ who states in the Bible in my favourite verse Psalm 37.5 Commit everything you do to the LORD. Trust him, and he will help you. This is so true because many times during the past 2 years I felt that this was just too much for me to take on and on every occasion this message kept on reminding me that with the Lord on your side helping you, anything is possible.

Then the many people who gave me mental and emotional sustenance along the way:

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For any errors or inadequacies that may remain in this work, of course, the responsibility is entirely my own.

ABSTRACT

Although management and leadership research in the past century has significantly enhanced our understanding of human workplace behaviour, recent developments in neuroscience with the potential to significantly advance that research remain largely untapped. Standing upon this rapidly developing body of neuroscience research, and particularly social cognitive neuroscience research, proposals to formalise a specific new field dedicated and committed to exploring the processes within the brain that underlie or influence human decisions, behaviours, and interactions in the workplace and beyond is being developed.

NeuroLeadership focuses on how individuals in a social environment make decisions and solve problems, regulate their emotions, collaborate with and influence others, and facilitate change; that is, NeuroLeadership engages the “people,” as opposed to the functional side of business (Ringleb & Rock, 2008). As a sub-discipline, NeuroLeadership is emerging in parallel with developments in research technologies which provide researchers with the ability to directly observe brain activity. Those technologies are providing researchers with both confirmation of and new insights into long-held theories and concepts, which to date have largely focused on social psychology theories. The adaptation of this research to other social sciences in general, and to leadership and leadership development more specifically, is moving much more slowly

During organisational change staff members are usually unsure about their job security. Job security is one of the stress factors that can have a negative effect on the organisation during these changes. During this period of change and uncertainty it is important to manage stress as an important factor. These stress factors have to be identified and addressed. By managing stress while providing a better work environment and support, effective leadership will provide support to staff to be able to perform more effectively in their respective roles.

The focus of this research is to explore the neural basis of leadership and management practices, effectively bringing about the interface between the tools of

social cognitive and affective neuroscience and other domains within neuroscience, and questions and theories from the leadership and management social sciences.

One area of emerging research focuses on the preparation to change, which has a solid effect on numerous choices in a change process, for example, arranging, execution, correspondence and systematisation. Notwithstanding, the expression "preparation" still makes disarray as it is exhibited in a short-sighted manner. Throughout this research the researcher's objective is to expand the understating of the preparation effect on change accomplishment by looking at different levels of this idea and their progress.

A quantitative research method approach will also facilitate in comparing similar studies easily with more accuracy and would help the researcher in measuring and managing the variables while providing assistance in the collection of descriptive data. As part of the research method, the descriptive evaluative research methodology was used for analysis where data was collected through surveys based on the assumption that this would help produce more accurate results. The primary data sources included 12 organisations including their management and administration staff that is based in different cities across New Zealand. A sample population was drawn from the sampling frame. A sampling frame includes the actual number of employees in each organisation which was approximately 100 staff members. The main data collection techniques used in this research study was the literature reviews and a 3 part questionnaire.

In conclusion key implications and contributions of the study are presented. The study's key short coming is established. Recommendations with merit for both scholars and practitioners' attention are presented.

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CHAPTER 1

CONTEXTUALISING THE STUDY

1.1 INTRODUCTION

This chapter provides some background to the study and places the total research in context by providing a framework for the research being explored. A brief description of the key focus and a motivation for the understanding of this research is given. The purpose is stated and an overview of the research methodology and design is provided. The value and anticipated contributions of this research is also discussed.

1.2 BACKGROUND

In a competitive business environment, organisations rely upon their leaders to facilitate the changes and innovations required to maintain competitive advantage. Leaders are perceived as persons who can single handed create order out of chaos, navigate organisations through unthinkable environmental turbulence, bring mightiness out of mediocrity, and thrive where lesser mortals will quickly fade away. Leadership has been altered over time, with the change in employee requirements resulting in a demand for change in the relationship between a leader and his subordinates (Naidoo, 2012).

Leaders have been found to influence followers in many ways, including coordinating, communicating, training, motivating, and rewarding. In spite of the fact that management and leadership research in the previous century has altogether improved our understanding of human work environment conduct, recent developments in neuroscience with the possibility to fundamentally progress that

research remain generally undiscovered. Remaining upon this fast creating collection of neuroscience exploration, and especially social cognitive neuroscience research, recommendations to formalise a particular new field committed and focused on investigating the methodologies inside the brain that underlie or impact human choices, practices, and communications in the work environment is constantly being developed (Naidoo, 2012).

NeuroLeadership, a saying initially authored by one of the founders, David Rock, in 2006, are growing in recognition and acceptance. It has now been more than two decades since the first fMRI (functional magnetic resonance imaging) paper was published. In 1992, just four such papers were published; in 2007, there were eight published per day (Editorial, 2009). In view of perceptions and exchanges with leading neuroscientists and authority researchers, there is every reason to believe those numbers will keep on increasing, with developments in innovations giving scientists more point by point data about the mind. Based on searches done on amazon.com, in 2009, there were 230 books composed on the brain; for 2010, there was more than 200 slated to be distributed in the first half of the year alone (Ringleb & Rock, 2009). A search of research databases uncovers 50 articles were written up to April 2014 examining neuroscience and its requisitions pertinent to the powerful practice of administration and leadership (Neuroscience, 2014).

Whether from an administration, authority, or individual point of view, much of the initial research on the impact of NeuroLeadership during organisational change has concentrated on researching the mental nature of behaviour (Rock, 2009a). An understanding of supporter behaviour was thought to give pioneers the capability to suitably inspire individuals in light of a legitimate concern for hierarchical change and execution. Concerns about how inspiration takes place created extensive research on the procedure of inspiration, underscoring desires, input, honesty, objective-setting, and implementing the different methodologies utilised by pioneers within achieving behavioural change. In giving direction to associations in overcoming supporter imperviousness to change, administration and administration scholars touted the criticalness of such apparatuses and methods as honing, tutoring, and preparing projects.

1.2.1 The influence of neuroscience

While neuroscience has totally erased the thought that after a certain level of advancement the mind is no longer capable of change, significant research is as of now being carried out on how rapidly the brain changes and the degree to which those progressions are economical. In their study published in the Journal of Neuroscience, Profs. Dilks, Baker, Liu, and Kanwisher indicate that the brain can adjust to changing requests and conditions in visual deprivation much quicker than what had been expected a while ago (Dilks *et.al*, 2009). While comparative studies have been carried out on the somatosensory framework, moderately little work had been carried out on the perceptual results of deprivation in the visual framework and no work contributing the time course of any such outcomes, the last piece of the study being the most fascinating with respect to neuroplasticity. In view of the responses of 48 people between 19 to 50 years, the study found that neurons responded to visual deprivation (every members' left eye was fixed) in a matter of seconds. The exploration group left Profs. Dilks, Baker, Liu, and Kanwisher with an extremely paramount inquiry for future examination: 'are these phenomena identified with, or altogether different from, the neural components underlying developmental pliancy?'

Throughout organisational change staff members are generally unsure about their job security. Work security is one of the anxiety factors that can have a negative impact on the association throughout these progressions (Clausen & Petruka, 2009). Throughout this time of progressions and instability it is paramount to manage stress and in addition different variables. These anxiety components must be distinguished and tended to. By managing stress while giving a better work environment and support, effective leadership will provide support to staff to have the capacity to perform effectively in their respective roles (Chen & Kottler, 2012). This research discusses the new emerging field of NeuroLeadership to enhance leadership effectiveness inside organisations and associations by creating a science for leadership and leadership advancement that straightforwardly considers the physiology of the brain and the mind particularly throughout organisational change and how dismissing stress inside an organisation can have a critical effect on staff

performance. These issues need to be tended to, to provide a better working environment.

1.2.2 Preparation for organisational change

One area of emerging research focuses on the preparation to change, which has a solid effect on numerous choices in a change process, for example, arranging, execution, correspondence and systematisation. Notwithstanding, the expression "preparation" still makes disarray as it is exhibited in a short-sighted manner (Vakola, 2013). Throughout this research the researcher's objective is to expand the understating of the preparation effect on change accomplishment by looking at different levels of this idea, in particular, micro-individual readiness, meso-group readiness and macro-organisational readiness, and their progress. This research concludes with a discussion on the best way to make multilevel preparation to change for both planning and implementing organisational change.

Increased organisational change is increasing pressure on learning. Each new item, dispersion model, association, or hierarchical structure accompanies new data and techniques to recall. And in addition having more to learn than at any other time, there is less time to learn it in, determined by a yearning to get to market swiftly. At that point there is the test of the way of work itself, where preoccupations and multi-tasking repress the capacity to centre sufficiently to learn something new. At long last, budgets for training and development today are under noteworthy pressure. In short, the pressure is on for employees to take in more, faster, under more difficult conditions, and within tight budgets. In summation, learning managers are endeavouring to develop their learning contributions to meet the changed environment and needs. Yet, all around, they are doing so focused around mystery, without a great hypothesis to educate their experimentation (Davachi *et al.*, 2010).

The organisational change has turned into the standard for some individuals in different varieties of associations (Reissner, 2011). As early as the mid-1990's, hypotheses have remarked on the uncommon measure of progress that is frequently traumatic in a worldwide economy (Vakola, 2013). Today, the monstrous changes in huge and complex associations are more incessant than at any other time. With numerous Fortune 100 organisations looking to reinvent themselves keeping in mind

the end goal to maintain their competitive advantage, the test of irregular change rests upon the shoulders of organisational leaders that impact these pioneers (Du Plessis, *et al.*, 2012)

Particularly with globalisation, numerous associations, for example, Sun Microsystems and Conoco Phillips utilise individuals from various ethnic and social establishments. This diverse workforce further confuses organisational change issues (Nel, Fourie & Du Plessis, 2013).

1.2.3 Influence of industrial and organisational psychologists on organisational change

Furthermore, the increment of innovative developments further challenges individuals at all levels of associations. Particularly with associations' progressive choices on technology infrastructure, the level of stress receiving new advances further confuse the workers' recognition of various organisational changes (Du Plessis, *et al.*, 2011). These natural powers drive organisational change to be irregular, traumatic and continually expanding. The complicated quality of individuals, innovation and worldwide competitive forces give adequate room to further study and research for industrial and organisational (I/O) psychologists (Rock & Cox, 2012).

Within the paradigm of change leadership, I/O psychologists play a number of roles. A typical part is a specialist. As specialists, I/O psychologists support organisational leaders with difficulties at the individual, group and organisational level. An alternate part for I/O psychologists is the part of a mentor. The field of coaching for executives has seen a huge development. Disappointingly, it is an unregulated field with numerous players from business to brain science. A logical part that I/O psychologists are balanced for is a systemic mastermind. This is not a conventional title such as the other two. Rather, it is a method for thought and being that transcends a substance-driven world that holds human practices inside a classification. This part is about looking for understanding of the different frameworks inside associations and their interconnectedness that is frequently overlooked inside issue-based methodologies. Inside the parts of a specialist, a mentor and a systemic mastermind, I/O psychologists can perform numerous capacities. Every part sees

the association in an unexpected way. The specialist may provide a change concentrated on an issue; the mentor may concentrate on individuals' learning and development as the change; the systemic mastermind empowers leaders with an acknowledgment of the change complicated quality (Rock & Cox, 2012).

The amount of research inside substantial and complex organisational change situations is limited. Reissner (2011) accepts that the feeling of mystery concerning what leaders see inside this environment keeps them safe. Whether its dedication to the association or alarm of countering from different executives, the greater part of what happens inside organisational change is obscure to the general population. This can likewise be an issue of mindfulness. Numerous leaders may not be mindful of the social values and convictions that drive their choices. Such unwritten convictions may drive critical stress for organisational members throughout times of change. These unwritten drivers of choices and practices inside organisational leaders are one work environment for I/O psychologists (Rock & Cox, 2012).

The main part of the research on organisational change takes an organisational (macro) rather than an individual point of view. Such research has a tendency to either look at associations' key adjustment to natural progressions (strategic management literature by gurus such as - Kotter & Schlesinger, 1979), or courses of action and systems utilised for executing single changes within associations (hierarchical advancement writing - Schweiger & DeNisi, 1991). Yet, eventually, the key components in deciding the achievement of organisational changes are the disposition and practices of the people charged with the execution (Herold, *et al.*, 2008). Along these lines, we have a sensible understanding of how associations bargain with their surroundings, how particular relevant variables influence the achievement of particular change exertions, and how change administration practices/methodologies can influence the results of particular progressions, for example, layoffs (Risberg, 2015). Interestingly, a great deal less is thought about how people see organisational changes, how such recognitions are influenced by the specifics of the change itself and by different progressions happening in nature, and the elements that focus their extreme reactions to the change.

1.2.4 Advancements in organisational change

Görgens-Ekermans and Herbert (2013), in their review of organisational change hypothesis and examination improvements in the 2000's, isolated these advancements into four classifications or topics:

- **Content issues** concentrating on the substance of the change (e.g., rearrangements),
- **Setting issues** concentrating on strengths internal and external to the association,
- **Procedure issues** concentrating on how the change was actualised, and
- **Rule issues** concentrating on results ordinarily surveyed.

The way that ten years of change-oriented research can fit these classes, without obliging a classification tending to the people influenced by the changes, is further confirmation of a critical missing connection in our comprehension (Görgens-Ekermans & Herbert, 2013).

On the off chance that change execution eventually relies on upon the disposition and practices of organisational members, we then have to grow our models for considering change. At an extremely general level, it appears sensible to estimate that the way of the change ("What"), the totality of different progressions ("What else"), the methodology by which change is overseen ("How"), and the inclinations of the individual encountering the change ("Who") will all assume parts in deciding unique reactions. There is unfortunately little research or hypotheses to guide the researcher in creating such a schema (Risberg, 2015).

Of the four classes of variables ("What," "What else," "How," and "Who"), the organisational improvement and organisational conduct literary works have presumably given the best understanding into the "How" variables through research on change practices and the criticalness of such components as procedural fairness. At the "What" level, we do not have much to go on. At the point when studies have

concentrated on specific progressions, e.g., layoffs, redesigns, organisational conversion, or basically vital strategy changes, they have regularly utilised one specific change as a vehicle for examining a few procedures or conclusion variables of investment (procedural equity, adapting, and attitudes about the change) (Niessen *et al.*, 2010). Thus, this has constrained the researcher's understanding of the expansive cluster of conceivable organisational changes. Moreover, the researcher as of now fails to offer a typology of changes that might help in dimensionalising the area regarding what it is about diverse changes that impacts people's reactions (Risberg, 2015).

At the "Who" level, the state of research is reflective of the general disregard of distinct contrasts or identity attributes examined in organisational studies (Görgens-Ekermans & Herbert, 2013). Just as of late, analysts, for example, have started to study individual variables (identity, respect toward oneself, locus of control, and so on) as determinants of how individuals adapt to change (Niessen *et al.*, 2010). Thus, the researcher did not have the capacity to focus the effect of distinctive contrasts inside the more sensible connection of what has changed and how that change has been overseen.

Likewise, at the "What else" level, the researcher has little to go on in light of the fact that change research has practically constantly cantered around a specific "change occasion," instead of capturing the broader change environment. In that capacity, there is a whole setting to any change that has, to date, been totally disregarded by researchers in this area.

1.2.5 Methodology in brief

The data used in this research is collected by implementing quantitative research methodology. A structured survey was executed to obtain staff perspectives during organisational change in order to identify the causes of stress for them and the ways it can be managed to improve the effectiveness of management. A literature review was undertaken to collect more information with regard to NeuroLeadership pertaining to staff job performance within the organisation during

changes and this revealed several gaps in the literature that this study endeavours to fill.

The basis of this research is a collection of data from staff comprising of managers and administration staff from 12 organisations. The reason for selecting and examining the two categories of staff (management and administration) is to ensure an adequate number of participants for the research are obtained and fairly represent the different discipline areas. All proposed plans, implementation processes and outcomes were assessed, documented, tabled and graphed.

1.3. KEY FOCUS AND MOTIVATION FOR THE STUDY

This research gives a better understanding of the various factors that can enhance NeuroLeadership within an organisation especially during organisational change how to motivate them to improve their performance. This research also studies the new emerging field of NeuroLeadership and how to improve an organisation's efficiency.

Understanding NeuroLeadership, which is depicted as a specialty of synchronising the art of the brain with leadership behaviours, offers the best hope for effecting genuine change in a leader and inside an association. That is because understanding NeuroLeadership helps comprehend the effect that feelings and behaviours – and the behaviours of other people in the organisation has on prosperity and disappointment.

It was early in 2012 that the researcher was preparing to launch a brand new training programme at a training organisation where he worked. While sitting at his work area and thoroughly considered the flow of the week, he realised that he has just made a decision about change. Most of the decisions were still a sub-conscious one at that point, but his inner voice was guiding him to rethink the nature of the programme he has been thinking about. The risk was big, but the potential impact would be huge. He would go beyond the conventional programmes of the past. Instead of teaching an approved framework, he would teach people about the impact

that their long-established habits, and the behaviour of those around them have on their success and failure. Making this change was significant because it lead staff members to become the kind of people who can collaborate easily with each other and with clients. “We’re going to teach them how to get real, they’re going to have to stop role playing in these sessions, and do something authentic in order to discover the leader within themselves” was the researcher’s philosophy.

The decision just described above was an important one. It denoted the time when, sub-consciously, the researcher tapped into the field of neuroscience and its provision for leadership and people development. The main thing that reliably meets expectations is the chronic appropriation and practice of new behaviours in such a way, to the point that they get fortified in neural pathways and get to be a piece of the second nature of every person, and finally the whole organisation. NeuroLeadership for the researcher is the specialty of coordinating the study of the brain with leadership behaviours.

In organisations, where most individuals accept that numbers and realities are important for making decisions, and where well-adjusted confirmation passes on authenticity, NeuroLeadership is an extremely compelling tool for ingraining more competent conduct. Building consciousness of the exploratory foundations of human conduct – drawing on neuroscience, brain scans, and other information — opens the door for change. Specifically, focused attention is the key to initiate change. The standards of NeuroLeadership urge individuals to focus attention on the practices that will truly have any kind of effect and to investigate new domains for change and development. It is particularly useful when staff read their first articles about how feelings are included in decision making, even when utilising complex return on investments (ROI)-calculations.

1.3.1 The AGES - learning model

The ideas that have been most paramount in the organisation the researcher worked for – and for training and development – typically follow the AGES-learning model (Davachi *et al.*, 2010). They focus on:

- **Attention:** Producing a climate and culture of demanding consideration to learning and the moment – driven by the training set-up, resilient organisers and thought-provoking case studies.
- **Generation:** Continually asking mentors and training contributors to re-utilisation and re-state the learning models in their own words, combined with exceptional stories, consequently permitting them to make their own association to the learned content.
- **Emotions:** Leveraging the power of emotions through experiential learning, which deepens the hard wiring of new learning.
- **Spacing:** Reducing classroom time to a minimum and instead spreading out the content over a couple of days and weeks.

1.3.2 SCARF

The SCARF model involves five domains of human social experience: Status, Certainty, Autonomy, Relatedness and Fairness.

Status is about relative importance to others.

Certainty concerns being able to predict the future.

Autonomy provides a sense of control over events.

Relatedness is a sense of safety with others - of friend rather than foe.

Fairness is a perception of fair exchanges between people.

Components of the SCARF model was utilised (invented by David Rock 2008) to clarify every day circumstances in business, such as feedback, marketing, presentations and conflict handling. This permits participants to retain only one model that demonstrates the essentials of the NeuroLeadership hypothesis, which thus demonstrates how to be more compelling when networking with other people.

NeuroLeadership can possibly supersede the engineering-driven, mechanistic approach to managing skills and abilities with a more compelling, compassionate way. When looking at an organisation's values, competency models, leadership frameworks, or sales cycle flows, it's not difficult to get the feeling that this mechanistic approach is driving the entire industry. Be that as it may, the methodology overlooks what brain research tells researchers about how people learn and work together.

One example is the concept of employee engagement and motivation. How many organisations still believe that the "carrot-stick-approach" (often based on the size of a bonus) is the one factor which attracts and retains top talents? Science knows that intrinsic motivation is a key driver of performance. It's also true that the entire value systems of younger generations have dramatically changed. These are two factors which could be addressed using a "brain-based" approach for leading organisations, teams and individuals. As a consequence, complex competency models and performance review procedures could be reduced. Given the fact that only 30 percent of the 360°-performance reviews lead to higher performance implies that a closer look into the field of neuroscience, and a smart and lean transfer into daily business, could be worthwhile (Rock & Cox, 2012).

1.3.3 Recipe for NeuroLeadership

The recipe for successfully building NeuroLeadership into organisational learning and development is as easy as cooking a meal for friends you have invited to a dinner party. But it requires proper planning.

Get an appetite for it

Organisations will recognise the worth of NeuroLeadership when they open themselves to its standards and identify how they could enhance their ordinary procedures to management development. One great approach to do this is to go to a system where the mentor is utilising components of NeuroLeadership, or a symposium related to the ideas. Organisations can also conduct some of the business experiments described by leading experts such as David Rock and Dr. Jeffrey Schwartz (Davachi *et al.*, 2010). A large number of these experiments can be carried out with teams or in a training programme. They incorporate remembering words or word-association activities that reveal the uniqueness of one's brain, and the prospective effect of divided attention. These are the special moments when organisations get the key into the door and find themselves wanting to unlock it in order to start changing behaviours (Kiefer, 2011).

Get the ingredients

The ingredients for a perfect meal are important – as they are for a good change programme. One of the most imperative ingredients is the programme design, together with the selection of an appropriate organiser. It makes sense to bring on board somebody who has a strong reputation in the market and who recognises the relevance of NeuroLeadership for business. Also, contemplate the materials used. There are a few scientific articles that are extremely significant for business and that can be read by people who are not scientists. One example is a book about “brain rules” by John Medina (Kiefer, 2011).

Cook it

Cooking the meal necessitates perseverance and understanding. Organisations have to realise what they ought to toss into the pot first. A great blend of "supporters" and "critical" clients among the participants appears to be perfect. It is useful to have individuals with experience and long service to your organisation, so they could be a piece of the transformation process and perceive the big shift in

their reasoning. An alternative tip is to abstain from attempting to be convincing and rather give reasonable explanations for why you are following this approach. The key is to empower individuals to create their experiences without letting them know about the expectation. As it were, whether they cherish the mediation and they can't let individuals know immediately why, it has been carried out exceptionally well (Kiefer, 2011).

Serve and enjoy it

Define clear performance goals for individuals. In all probability, organisations will begin with an experimental programme, where, from the first moment they will need to monitor the progress people are making. For instance, conduct five-minute, problem-solving conversational exercises and check in on the number of insights generated in them. On the off chance that the configuration is correct, organisations can achieve 300-800 percent performance improvement within 48 hours. As participants begin to see what they could do differently, they will start to challenge existing conditions. Case in point, at coffee breaks they will start to examine how they could be more effective in daily business. This is the moment when organisations will enjoy the meal that they have created (Kiefer, 2011).

Digest it and prepare for the next dinner

Analyse the meal. Develop measurement of progress by frequently checking in on how well individuals are meeting the performance goals defined in the previous programme. Stay informed of responses to engagement surveys of the employees. Return on Investment (ROI) studies on training may show results, but do not forget that the value of a dinner is determined by quality, not just quantity. Sustain the impetus of the great dinner experience and start to plan how to inject the NeuroLeadership concept into other programmes and procedures in the organisation (Kiefer, 2011). These could include:

- How to offer feedback in a way that increases performance
- How to increase sales efficiency
- How to claim value in negotiations

- How to inspire and involve top talent

NeuroLeadership can possibly replace complex competency models, appraisal methods and training guides with a couple of straightforward but key principles. It has the potential to bring the intention in line with the tools used in human resource (HR) functions: How to attract and retain top talents and improve their performance. It is an approach which works and it is focused around strengths instead of fear – an approach which could end up being truly basic yet very compelling. What's more it is an approach which keeps on developing and evolving, producing further inquiries and fortifying close collaboration between science and business to answer these questions (Davachi *et al.*, 2010).

1.4. WORKING TITLE AND PURPOSE OF THE STUDY

The working title for this project is: **“Identifying and managing the impact of NeuroLeadership during organisational change”**.

NeuroLeadership focuses on how individuals in a social environment make decisions and solve problems, regulate their emotions, collaborate with and influence others, and facilitate change; that is, NeuroLeadership engages the “people,” as opposed to the functional side of business (Ringleb & Rock, 2009).

1.5. AIM AND OBJECTIVES OF THE STUDY

The problem statement therefor is the impact of NeuroLeadership on organisational change.

1.5.1 The **aim** of this research is to help management, staff and organisations to get an insight on the various situations that have an impact on them during organisational change. This study recommends guidelines to improve leadership effectiveness within institutions and organisations by developing a science for leadership and leadership development that directly takes into account the physiology of the mind and the brain.

1.5.2 The **objectives** that were investigated during the research are the following:-

- To theoretically study organisational change management.
- To obtain information about how organisational change relates to staff performance.
- To determine the impact of organisational change on the emotions of staff members.
- To theoretically study NeuroLeadership and motivation and how to apply it in the organisation.
- To determine methods and guidelines by which NeuroLeadership abilities can be enhanced to improve staff performance.

The main research question: How to identify and manage the impact of NeuroLeadership during organisational change, is approached and anticipated to be answered by the following sub-research questions.

1. To study the concept of organisational change and the impact on staff performance.
2. To investigate the impact of NeuroLeadership on staff performance during organisational change.
3. To study the impact of the emotions of staff during organisational change.

1.5.3 This study is based on the **hypotheses** stated below:

H1- Organisational change does have an impact on staff performance.

Ho1 – Organisational change does not have an impact on staff performance.

H2- NeuroLeadership abilities can be enhanced to improve staff performance.

Ho2 – NeuroLeadership abilities cannot be enhanced to improve staff performance.

H3 - Emotions relate to staff performance during organisational change.

Ho3 – Emotions do not relate to staff performance during organisational change.

1.5.4 Therefore, the sub-**research questions** of this study are as follows:

1. How does organisational change impact staff performance?
2. How can NeuroLeadership abilities be enhanced to improve staff performance during organisational change?
3. How does emotions relate to staff performance during organisational change?

1.6. CONTRIBUTIONS OF THE STUDY

This research contributes towards the body of scientific knowledge in a number of ways, which are discussed below.

1.6.1 Theoretical contribution

The field of NeuroLeadership is still in a developing stage therefore the research contributes to the theoretical debate on whether or not NeuroLeadership could have an impact during organisational change to sustain a competitive advantage through discovering which NeuroLeadership abilities can improve staff motivation and performance.

1.6.2 Literature contribution

This research endeavours to fill the gap in the literature, as mentioned above. Due to the fact that NeuroLeadership is merely 8 to 9 years in “existence” very few studies have emerged from NeuroLeadership and therefore there is a limited amount of research resulting in a limited amount of literature available. This research reports on the impact of NeuroLeadership during organisational change which contributes to the body of knowledge and fills in part the gap in literature on this topic. The researcher is not aware of any similar study that has been done in New Zealand and this could be regarded as the first of its kind in New Zealand.

1.6.3 Methodological contribution

For an organisation to sustain their competitive advantage after organisational changes, it is vital that the organisation incorporate essential NeuroLeadership abilities to develop organisational competencies to optimise staff performance. Therefore this research will be useful in expanding the status of quantitative research methodology in a specific area, by explicating specific approaches, or by introducing and illustrating the appropriateness or value of this methodology.

1.7. OUTLINE OF THE THESIS

In this, the **first chapter**, the researcher contextualises the study by providing an in-depth background, explaining the aims, purpose and objectives, discussing the relevance of the study, and outlining its expected contributions. The rest of the thesis consists of five chapters, which are outlined below.

Chapter 2 – Literature review where the researcher reviews existing literature on NeuroLeadership and Organisational Change.

Chapter 3 - Research design, where the researcher uses the quantitative research method to collect data in statistical form and converted the data into numbers by using a three part structured questionnaire. Methods of data collection and analysis are explained in this chapter.

Chapter 4 - Research findings: in this chapter the researcher uses regression analysis methods using Statistical Package for Social Sciences (SPSS) tool to substantiate the stated hypotheses in Chapter 1 and 3.

Chapter 5 - Discussion and interpretation of the findings with a more in-depth interpretation of NeuroLeadership and Organisational Change discussion based on the findings in Chapter 4.

Chapter 6 - Précis, implications and recommendations, which contains a summary of the implications of the study's key findings, outlines the study's key contributions, limitations and offers recommendations for leaders of organisations and for further research.

1.8 SUMMARY OF THE CHAPTER

To place this study in context the researcher has provided background information about NeuroLeadership and Organisational change. This research covers the new emerging field of NeuroLeadership and its effectiveness inside organisations throughout organisational change. Four advancements in organisational change were discussed. The AGES-learning model and the SCARF model were briefly explained. The recipe for successfully building NeuroLeadership into organisational learning and development was provided and explained.

The purpose, aim and objectives of this study were provided. The main research question and research questions were provided with the 3 main hypotheses. The anticipated contributions of the study were discussed and the outline for the rest of the thesis was provided. In the next chapter the available literature on NeuroLeadership and Organisational Change is reviewed.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

In Chapter 1 the introduction and background was given with a layout of the chapters. In this chapter the researcher reviews the most important literature about NeuroLeadership and Organisational change. Change is said to be the only permanent situation in life nonetheless, surprisingly, it is one decision that management finds difficult to make and implement and when a change is made, it is often one of the most resisted decisions by employees. However, change is inevitable; therefore, to be effective, management must anticipate and prepare for it. Furthermore the aim is to review available literature on NeuroLeadership and Organisational Change and what impact NeuroLeadership could have on employees during Organisational Change.

In this chapter the researcher reviews available literature relating to (1) NeuroLeadership; (2) Organisational Change and (3) the impact NeuroLeadership has on employees during Organisational Change.

2.2 NEUROLEADERSHIP

NeuroLeadership focuses on how individuals in a social environment make decisions and solve problems, regulate their emotions, collaborate with and influence others, and facilitate change; that is, NeuroLeadership engages the “people,” as opposed to the functional side of business (Ringleb & Rock, 2009), As a sub-discipline, NeuroLeadership is emerging in parallel with developments in research technologies which provide researchers with the ability to directly observe brain activity. Those technologies are providing researchers with both confirmation of and

new insights into long-held theories and concepts, which to date have largely focused on social psychology theories. The adaptation of this research to other social sciences in general, and to leadership and leadership development more specifically, is moving much more slowly (Ringleb, Rock & Cosner, 2010).

The formalisation of NeuroLeadership is driven by the overarching need worldwide for the efficient and effective development of leaders and of processes for continuous improvement in leadership quality (Ringleb, Rock & Cosner, 2010). In the on-going search for alternative solutions to this leadership crisis, the underlying subtleties and complexities of the leadership development process due to individual differences in the efficiency and sensitivity of brain structures are increasingly becoming understood and appreciated (Lieberman, 2007). Much of this new comprehension is flowing from a rapid expansion in research on the biological underpinnings of social processes driven by the advent of functional neuro-imaging and other technologies. In this light, there are clearly significant benefits to reframing traditional leadership and leadership development theories and concepts through the lens of neuroscience.

Firstly, neuroscience provides evidence-based, 'hard' science to assist leadership theorists in the development of those leadership skills traditionally considered 'soft' skills or 'soft' science. As a 'soft' science, leadership skills development has typically been ignored as being beyond the reach of traditional business education and training, with managers and leadership educators making limited use of the significant and substantial "hard-science" evidence provided by neuroscience and psychology on behaviours relevant and applicable to effective organisational and leadership practices (Rousseau, 2012). Secondly, by identifying the active, biological "ingredients" in leadership interventions, the efficacy of those leadership development efforts can be significantly improved. Lastly, neuroscience provides the necessary scientific rigor to promote the discovery of new and important insights into the leadership development process going forward.

From the initial article defining the field to the present, NeuroLeadership has continued to grow by virtually every measure (Ringleb, Rock & Ancona, 2012). Business schools are looking to add neuroscientists to their faculties and suggesting

neuroscience courses to their students. Unquestionably, neuroscience is one of the fastest growing areas of interest in contemporary science and NeuroLeadership is working to disseminate its findings applicable to the effective practice of leadership and leadership development (Daft & Marcic, 2015).

2.3 ORGANISATIONAL CHANGE

Change is a departure from an existing process or way of doing something, to a new process or a different way of doing the same thing. A process change can be an amendment to existing processes, an introduction of a new process or both. For example, a manual system can be redefined or automated, or an automated system can be upgraded, complemented or replaced entirely with new packages. These changes are also known as business process reengineering (BPR). Changes in any form are intended to better the organisation over the short term and/or long term. However, no matter how marketable change ideas are, they can be frustrated purposefully or inadvertently if they are not well managed during all stages according to the 1951 study of Kurt Lewin.

Poor leadership often causes huge investments in the change process and the high expectations that come with the ideas to turn to huge disappointments. Some changes are introduced with fanfare, but not long after commencement of their implementation, they meet impediments that would have been avoidable or surmountable if they had been identified and managed promptly in the early stages. Instances abound where organisations' accounts remain irreconcilable due to process automation, system upgrade or introduction of entirely new packages. There is no doubt that such a process change at the point of conception, evaluation and/or implementation requires a great deal of financial resources and management time and leads to high expectations. Therefore, any failure can be disastrous. To prevent such a failure, attention should be given to organisational changes at all stages (Lewin, 1951 as cited in Naidoo, 2012).

In describing the psychology of change, the publication Field Theory in Social Science identifies three stages of process change: unfreezing (overcoming inertia and dismantling the existing mind-set), implementation (when the change occurs—

typically a period of confusion) and refreezing (the new mind-set is crystallising and a comfort level is returning at previous levels) (Levin, 1951, as cited in Naidoo, 2012).

Change must be realistic and attainable. The cooperation of all stakeholders is a matter of necessity. Instead of forcing a change, it is better to ensure that a reasonable number of stakeholders buy into the change and the process of effecting the change. Criticism should be encouraged from the proponents and opponents of the change and should be objectively analysed (Beckhard, 1969, as cited in Naidoo, 2012).

Every change process should begin with asking at least four basic questions:

1. What needs to be changed? Change should not be introduced into the system just for the sake of it. Changes can be induced from within the organisation or outside of it. In either case, the question of what to change is critical. The question is best answered when the limitations of the present process are identified. The answer to this question should be able to address why the change is necessary.
2. To what should it be changed? It is one thing to know that there is a need to effect changes in the present system, but another critical question is to what it should be changed. Change cannot be justified if the organisation does not know of a better alternative to the current system/process. The proposed change must offer better benefits to the system than the current system does.
3. How should this change happen? This question is as relevant as the first two questions. Some laudable process changes (that successfully answer the first two questions) end as disasters, and all the management time and investments are wasted because the question of how to make the change happen was not properly addressed. Whatever approach is adopted to effect the change must address the issue of how to ensure no or minimal disruption to the system and must effect the change at a minimal cost.

4. How can the change be sustained? This question may be the most critical of the four. The question, if properly answered, justifies the wisdom behind the change. The three previous questions might be answered correctly, but if the question of how to sustain the change is not well addressed, all the efforts are merely a waste in the long run. This is the stage where many process changes face turbulent storms and, when they fail, it is said they were “not able to stand the test of time.” (Mobbs & McFarland, 2010).

The world of business is becoming more complex with constant change. Unfortunately, the conventional approach to organisational change applies management myths that greatly limit human potential. Rather than using existing assumptions of change such as dealing with resistance to change, a new approach to change offers a new leadership paradigm that drives organisational practices systemically. Rather than finding ways to overcome resistance, this new paradigm addresses change at three levels: the individual, the group and the organisation. The Systemic Learning Cycle for Change Leadership incorporates many theories from business and psychology. Based on a wide base of research from many fields of study including emotional intelligence and systems thinking, the model offers new opportunities for leaders to function beyond traditional and limiting paradigms. The model is practical and empowers employees to embrace change with minimal, if any, resistance to change (Sun, 2009).

Why can't we change our organisations? Year after year, the list of organisations that no longer exist because they were unable to evolve continues to grow. It includes such household names as Sunbeam, Polaroid, Tower Records, Circuit City, and Drexel Burnham Lambert. After six decades of study, untold investment, and the best efforts of scholars, executives, and consultants, most organisational change efforts still underperform, fail, or make things worse (Mobbs & McFarland, 2010).

This is bad news for 21st century organisations. Increasing competition, globalisation, technological changes, financial upheaval, political uncertainty, changing workforce demographics, and other factors are forcing organisations to change faster and differently than ever before. Worse, there is little reason to believe

the field of organisational change can be of much help. Not only is the track record of change efforts dismal — it may not be improving. Experts have reported similar results for organisational change efforts since the 1980s. Clearly, new insight is needed into how organisations can better adapt to their environments and change (Mobbs & McFarland, 2010).

Although myriad factors are cited, the inability to engage people is the factor noted longest and most often. As organisational behavioural experts Kenneth Thompson and Fred Luthans noted almost 20 years ago, a person's reaction to organisational change "can be so excessive and immediate, that some researchers have suggested it may be easier to start a completely new organisation than to try to change an existing one." This phenomenon, often referred to as "human resistance to change," is possibly the most important issue facing the field of organisational change — and one that continues to baffle scholars, consultants, and executives (Mobbs & McFarland, 2010). So referring to research question 1, how do we effectively engage the support and creativity of an organisation's employees at the moment these attributes are most needed — during an organisational change?

One source of insight may be the field of neuroscience. The study of the brain, particularly within the field of social, cognitive, and affective neuroscience, is starting to provide some underlying insights that can be applied in the real world and, perhaps, increasingly to our understanding of how to better engage human performance and creativity during change (Mobbs & McFarland, 2010). Another major challenge is the reductionist approach to studying organisational change, especially when the changes are often drastic (Reissner, 2011). While organisational change is complex, many studies attempt to separate leaders from their organisational environment. Reissner (2011) discussed the personality traits of humility and self-awareness for effective leadership. His research found many specific traits and behaviours of past effective leaders in challenging times such as confronting the real facts and not blaming people for mistakes.

Mobbs and McFarland (2010) also identified specific traits that create success such as poise, ability to take action on impulse, a positive attitude and ambition. While many more studies continue to focus on traits of leaders, Stogdill's (1948)

studies debunked the trait theory. He concluded that there are many other factors besides traits that predict effective leadership. Other factors such as a situational context are also crucial to effective leadership and that leaders and organisational cultures cannot be separated when studying organisational effectiveness. Within the organisational environment, many levels of culture need attention in addition to the traits and behaviours of leaders. During organisational change the common practice of separating people, processes and environments misses the connected nature of organisational change (Mobbs & McFarland, 2010).

A final limitation within the mental prison of organisational change is the change theories. For example, many strategies for working with, creating and implementing change call on Lewin's (1951) three step change model: unfreeze, make the change and refreeze. While the model provides a simple guideline, the last step of refreeze or institutionalise the changes goes against the need for constant adaptation and learning within a fast changing environment (Marriott *et al.*, 2013). Especially with discontinuous and traumatic changes, the last step builds resistance for the next change. While the conventional wisdom of Lewin functioned well before the knowledge economy, the current environment requires organisations to be learning organisms. Since knowledge is never frozen, organisational change is a reflection of the constant learning process for new knowledge. Within the context of discontinuous change, organisational change has many limitations (Marriott *et al.*, 2013).

A crucial aspect of strategic thinking necessitates the critical assessment of conventional wisdom. Merely accepting organisational change and creating a strategy within this paradigm of thought could be an oxymoron. The focus of strategic thought for the next five years is aligned with leading change or change leadership, rather than managing change or change management which can be rather reactive. According to Herold, Fedor, Caldwell and Liu (2008), change leadership keeps a focus on the vision for the change. It has many parallel elements that directly relate to transformational leadership. Rather than focus on desired behaviours, leaders take on an inspirational role and place focus on the end without forcing the means onto their followers. Reissner (2011) adds the common notion of sustainability to this paradigm. Within change leadership, leaders instil a sense of

purpose that authentically engages people in the process so that organisations achieve sustainable success.

Another critical aspect of change leadership relates directly with the role that industrial and organisational (I/O) psychologists play within the field of business. To have a significant impact for the world, an entrepreneurial mentality enables I/O psychologists to penetrate conventional wisdom. One key aspect of the entrepreneurial mind is creativity (Sun, 2009). Within the mechanistic principles of management, it included strategic activities of coordination, command, and control. Creativity is not one of the drivers. Within leadership, the competitive marketplace of today's global economy demands creativity. Especially working within the common team-based organisations, creativity is a primary competence required for sustainable success (Du Plessis *et al.*, 2012).

Thinking as an entrepreneur challenges I/O psychologists to debunk existing paradigms that perpetuate organisational challenges in their designs. For example, many theorists use the concept of thinking outside the box (Du Plessis *et al.*, 2012). Du Plessis *et al* (2012) refer to a study that focused on the comparison of adopters who conformed to explicit rules within a paradigm and innovators who preferred freedom of thought without structure. While the study looked at the difference in motivation, it did not address how one develops the cognitive style to be innovators nor did it define what it means to think outside the box. A simple question might be asked: why does one's thought have to be in a box in the first place? If one is outside one's box, are they only placing thought into a larger box that may have different and new limitations? With the given context of a box, researchers do not have to accept the context as a fixed container.

As I/O psychologists take on the various roles to lead organisational change, creative thought would challenge many existing paradigms in organisations that limit people's potentials (e.g., people as interchangeable parts and hierarchical structures). The abundance of management principles embedded in leaders' belief systems is a starting place for I/O psychologists to have a profound impact. I/O psychologists are poised to make intrinsic shifts in thought towards congruence

(Sun, 2009), while shifting organisational systems external to leaders is also a natural outcome of change leadership (Du Plessis *et al.*, 2012).

Referring to sub-research question 2: How do emotions relate to staff performance during organisational change, and sub-research question 3: How NeuroLeadership abilities can be enhanced to improve staff performance during organisational change, most of these ideas discussed above have implications in the field of neuroscience. For instance, the need to create a burning platform atmosphere at work can trigger a limbic response in employees. Instead of motivating people to change in a positive way, a burning platform makes them uncomfortable — thrusting change upon them. In another example, driving change from the top can trigger fear within employees because it deprives them of key needs that help them better navigate the social world in the workplace. These needs include **Status**, **Certainty**, **Autonomy**, **Relatedness**, and **Fairness** — the foundation of the SCARF model as described in Chapter 1. If out of synch, these five needs have been shown in many neuroscience studies to activate the same threat circuitry activated by physical threats, such as pain (Mobbs & McFarland, 2010).

Keeping all this in mind, the researcher proposes one idea that hasn't been explored yet. The researcher strongly believes that leaders need to think about change differently. To begin, think about people differently — not as commodities to be hurried and pushed around but as sources of real and powerful competitive advantage. A second step is to see change differently — not just as a perpetual crisis, but as an opportunity to be better prepared and equipped to manage organisational shakeups as a normal part of doing business, and as an opportunity to personally develop and grow.

For many years, the training field has viewed organisational change as a process that is both linear and sequential. Instead, change has revealed itself to be non-linear and chaotic. It's time to find a new model — one that incorporates insights from neuroscience research and takes into account 21st century workplace dynamics and realities (Mobbs & McFarland, 2010).

2.4 NEUROLEADERSHIP AND ORGANISATIONAL CHANGE

Research on change initially focused on organisational change, examining the forces of change and processes for bringing about change within the organisation (Lewin, 1951). In understanding the success or failure of an organisation to change, attention focused on the organisation's resistance to change and the programs that could be put in place to promote acceptance. More recently, theorists have focused on the processes and key characteristics of leaders who accomplish successful change projects (Marriott *et al.*, 2013). In drawing a distinction between leading for change and leading for stability, a "transformational leader" has been defined by theorists as a leader with the ability to bring about significant change by focusing on such qualities as vision and shared values in order to build relationships rather than on the use of rules, directions, and incentives (Du Plessis *et al.*, 2012).

Whether from a management or leadership perspective, much of the research on facilitating change has focused on motivating organisational member behaviour (Vroom, 1964 as cited in Nel *et al.*, 2013). That is, much of the research has been behaviour-based, focused on investigating the psychological nature of organisational member behaviour, including studies on key personality traits, functional differences, attitudes, perceptions, and creativity. A clearer understanding of organisational member behaviour was thought to provide leaders with the ability to motivate people appropriately in the interest of organisational change and performance. This lineage of research focused first on economic gain as cited in Du Plessis *et al.*, (2012), and then on the social needs of the individual as explained in their original research by Elton Mayo in 1945 and also in the original studies of Rothlisberger and Dickson many years ago in 1939. A variety of models were offered by motivational theorists (Allderfer, 1972 as cited in Nel *et al.*, 2013; Herzberg, 1987 as cited in Nel *et al.*, 2013), and research identified individual needs such as achievement, affiliation, and power as important drivers.

Concerns about how motivation occurs generated considerable research since the previous century on the process of motivation emphasising expectations, fairness, goal setting, and reinforcement in explaining the various approaches used

by leaders in bringing about behavioural change. Research into the application of motivational strategies focused on empowerment, participation, alternative forms of work arrangements, and performance-based rewards (Du Plessis *et al.*, 2012).

In organisations, where most people believe that numbers and facts are pivotal for making decisions, and where rational substantiation conveys legitimacy, NeuroLeadership is a very effective tool for instilling more capable behaviour. Building awareness of the scientific underpinnings of human behaviour – drawing on neuroscience, brain-scans, and other data — opens the door for change. In particular, focused attention is the key to initiate change. The principles of NeuroLeadership encourage people to focus attention on the practices that will genuinely make a difference and to explore new territories for change and growth. It is especially helpful when your staff read their first articles about how emotions are involved in decision making, even when using complex calculations. At this point, the beginning, the door to learning something new is wide open (Kiefer, 2011).

NeuroLeadership has the potential to replace the engineering-driven, mechanistic approach to managing talents with a more effective, humane way. When looking at an organisation's values, competency models, leadership frameworks, or sales cycle flows, it's easy to get the impression that this mechanistic approach is driving the entire industry. However, the approach ignores what brain research tells us about how people learn and work together (Kiefer, 2011).

One example is the concept of employee engagement and motivation. How many organisations still believe that the “carrot-stick-approach” (often based on the size of a bonus) is the one factor which attracts and retains top talents? Science knows that intrinsic motivation is a key driver of performance. It's also true that the entire value systems of younger generations have dramatically changed. These are two factors which could be addressed using a “brain-based” approach for leading organisations, teams and individuals. As a consequence, complex competency models and performance review procedures could be reduced. Given the fact that only 30 percent of the 360°-performance reviews lead to higher performance implies that a closer look into the field of neuroscience, and a smart and lean transfer into daily business, could be worthwhile (Kiefer, 2011).

The recipe for successfully building NeuroLeadership into organisational learning and development is as easy as cooking a meal for friends you have invited to a dinner party as discussed in Chapter 1. But it requires proper planning. NeuroLeadership has the potential to replace complex competency models, assessment procedures and training roadmaps with a few simple but key principles. It has the potential to bring the intention in line with the tools used in HR functions: How to attract and retain top talents and improve their performance. It is an approach which works and it is based on strengths instead of fear – an approach which could turn out to be quite simple but highly effective. And it is an approach which continues to develop and evolve, generating further questions and reinforcing close collaboration between science and business to answer these questions (Kiefer, 2011).

2.5 CONCLUSION OF THE LITERATURE REVIEW

Although the research linkages between psychology and leadership are long-held and productive, the formal research linkages between leadership and neuroscience are much less developed. Still, the contributions which social cognitive neuroscience research have and can make to social psychology differ little from the contributions it can make to furthering and deepening our understanding of leadership and leadership development. The potential for substantive advances in both domains is significant and important. Neuroscience is very rapidly beginning to show the anatomy and physiology of the social science research on leadership. Still, while the interface between neuroscience and leadership research seems clear, a quick survey of the leading management and a leading leadership textbook shows few if any cites to neuroscience literature and research. Given the potential benefits to both domains, I would like to emulate the words of the leading social cognitive neuroscientist Matthew Lieberman: “It may be time for leadership theorists to take a neuroscientist to lunch”.

Change can be costly, financially and otherwise, but it can also be very rewarding if it is carefully thought out and implemented. Since a great deal of financial and human resources are required to effect some process changes, quality

plans are required to ensure that the new process is implemented, clogs in the wheels are promptly identified and feasible solutions are derived. It is the responsibility of top management to ensure a successful process change. To maximize success, management must be well equipped to manage the environment (employees, customers, suppliers, competitors and other stakeholders) affected directly or indirectly by the process change according to Lewin's 1951 study, as cited in Marriott et al, (2013).

Neuroscience research is clearly expanding rapidly with the growth in brain imaging technology. As research in neuroscience expands, the linkages with leadership and leadership development are providing fertile grounds for the development of better and better tools and techniques that allow us to increase the managerial and leadership productivity and effectiveness. It is important that researchers begin to both identify these linkages and provide input to neuroscientists as to the kind of research that would be most beneficial to leaders and leadership development. The neuroscience of feedback, conflict management, storytelling, and issue resolution are examples of the broad-based research articles that are likely to have the greatest impact on driving more and more specific research in those areas (Lieberman, 2007). As quoted in his previous introductory article on neuroscience, and in the words of Prof. Matthew Lieberman: 'It may be time for leadership theorists to take a neuroscientist to lunch.'

The picture that begins to unfold from the literature review is the fact that even relatively minor changes need to be properly managed, while more major changes might be given more latitude possibly because the reason(s) for them are more obvious. In addition, it was found that age was negatively related to change acceptance (not totally surprising) and that this effect was not ameliorated by managing the change fairly. In contrast, good change management worked well for younger employees. This raises a concern about how to get older employees "on board" when it comes to change initiatives. It was also found that organisations create change-related strain for their employees in two ways. First, the level of strain depends on the impact the change has on the individual's own job. In other words, high personal demands tend to translate into high strain. Second, if change has a

significant impact on the work unit and that change is not managed well, in terms of fairness, this also tends to lead to experiences of personal strain.

Although many organisations “tip their hat” to the notion that the consideration of employees is essential to effective organisational change, most do not seriously follow through to make sure such considerations guide their change practices. Even in those instances where the change tends to have negative outcomes (e.g., downsizing), management should be vigilant about finding ways to ameliorate any negative consequences for individual employees. As such, the researcher’s conclusions of the literature suggest that organisations can actually benefit, in terms of less strain and higher commitment, in the face of difficult changes.

Leadership, psychology, and neuroscience scholars all recognise the challenges in changing long-entrenched habits. In an effort to improve or change employee motivation and performance with the intent to bring about organisational change, leadership theorists have long touted the importance of organisational learning through such tools and techniques as coaching, training and development programmes. In an academic sense, change has typically implied skills development. While practitioners will be the first to express their appreciation for the importance of technically trained leaders, they will also be the first to express their frustration with the effectiveness of skills or content based approaches to leadership development (Wensley, 2013). It is not surprising then, that practitioners are reacting with such enthusiasm to recent research in psychology, leadership, organisational behaviour, and, particularly, neuroscience revealing the importance of emotion and emotion management as fundamental ingredients in effective social interactions. Perhaps due in part to the euphoria associated with emotional intelligence (EI), effective individual change has become associated with an individual’s level of self-awareness a personal sense of strengths and weaknesses, and vision of continuous advancement and personal growth.

2.6 SUMMARY OF THE CHAPTER

In this chapter available literature was reviewed about NeuroLeadership and organisational change and what the impact of NeuroLeadership has on employees during organisational change. It was then established that the formalisation of NeuroLeadership is driven by the overarching need worldwide for the efficient and effective development of leaders and of processes for continuous improvement in leadership quality. Furthermore defining the field of NeuroLeadership has continued to grow by virtually every measure since the first article was written in 2008.

It was then established that change initially focused on organisational change, examining the forces of change and processes for bringing about change within the organisation. In understanding the success or failure of an organisation to change, attention focused on the organisation's resistance to change and the programs that could be put in place to promote acceptance. In drawing a distinction between leading for change and leading for stability, a "transformational leader" has been defined as a leader with the ability to bring about significant change by focusing on such qualities as vision and shared values in order to build relationships rather than on the use of rules, directions, and incentives.

Four basic questions that every change process should begin was introduced;

What needs to be changed?

To what should it be changed?

How should this change happen?

How can the change be sustained?

The researcher proposed one idea that hasn't been explored yet which is to think about people differently — not as commodities to be hurried and pushed around but as sources of real and powerful competitive advantage. A second step is to see change differently — not just as a perpetual crisis, but as an opportunity to be better prepared and equipped to manage organisational shakeups as a normal part of doing business, and as an opportunity to personally develop and grow.

In Chapter 3 the researcher examines approaches to research designs and the importance of the role and purpose of the research design, what it is and what it is not and where it fits into the whole research process from framing a question to finally analysing and reporting data.

CHAPTER 3

RESEARCH DESIGN

3.1 INTRODUCTION

In the previous chapter the background to this study was discussed along with a review on available literature on NeuroLeadership and Organisational Change and what impact NeuroLeadership could have on employees during Organisational Change. Before examining types of research designs it is important to be clear about the role and purpose of the research design. Researchers need to understand what research design is and what it is not. Researchers need to know where design fits into the whole research process from framing a question to finally analysing and reporting data. This is the purpose of this chapter.

Research design is the overall plan for connecting the conceptual research problems to the pertinent (and achievable) empirical research. In other words, the research design articulates what data is required, what methods are going to be used to collect and analyse this data, and how all of this is going to answer the research question. Both data and methods, and the way in which these will be configured in the research project, need to be the most effective in producing the answers to the research question (taking into account practical and other constraints of the study). Different design logics are used for different types of study (Edmonds & Kennedy, 2013).

Social researchers ask two fundamental types of research questions:

- 1 What is going on (descriptive research)?
- 2 Why is it going on (explanatory research)?

3.1.1 Descriptive research

Although some researchers dismiss descriptive research as 'mere description', good description is fundamental to the research enterprise and it has added immeasurably to our knowledge of the shape and nature of our society. Descriptive research encompasses much government sponsored research including the population census, the collection of a wide range of social indicators and economic information such as household expenditure patterns, time use studies, employment and crime statistics and the like (Collis & Hussey, 2014).

3.1.2 Explanatory research

Explanatory research focuses on the 'why' questions. For example, it is one thing to describe the crime rate in a country, to examine trends over time or to compare the rates in different countries. It is quite a different thing to develop explanations about why the crime rate is as high as it is; why some types of crime are increasing or why the rate is higher in some countries than in others (Collis & Hussey, 2014).

Research design is different from the method by which data are collected. Many research methods texts confuse research designs with methods. It is not uncommon to see research design treated as a mode of data collection rather than as a logical structure of the inquiry. But there is nothing intrinsic about any research design that requires a particular method of data collection. Although cross-sectional surveys are frequently equated with questionnaires and case studies are often equated with participant observation, data for any design can be collected with any data collection method. How the data are collected is irrelevant to the logic of the design (Collis & Hussey, 2014).

Failing to distinguish between design and method leads to poor evaluation of designs. Equating cross-sectional designs with questionnaires, or case studies with participant observation, means that the designs are often evaluated against the strengths and weaknesses of the method rather than their ability to draw relatively

unambiguous conclusions or to select between rival plausible hypotheses (Edmonds & Kennedy, 2013).

3.2 METHODOLOGY/RESEARCH METHOD

According to Edmonds and Kennedy (2013), the research method helps in the formation and development of research i.e. the bond which combines and supports all the elements within a research project collectively. In this research a quantitative research method approach was implemented by carrying out surveys. The selected research approach is appropriate for this research and its stated objectives because of the following:-

- Quantitative research would attain more consistent statistical end results.
- Collis and Hussey (2014) are of the opinion that with quantitative research the end results would be projectable with the population comprising of, in this case, management and administration staff.
- Since the surveys were carried out online, there were no geographic limitations and it was a single site case study. The participants were also notified by the researcher to seek appointments with them in order to help them to access the survey website.
- Participants were able to complete the survey at a time convenient to them.

A quantitative research method approach also facilitates in comparing similar studies easily with more accuracy and helps the researcher in measuring and managing the variables while providing assistance in the collection of descriptive data (Collis & Hussey, 2014).

This study is based on the hypotheses stated below:

H1- Organisational change does have an impact on staff performance.

Ho1 – Organisational change does not have an impact on staff performance.

H2- NeuroLeadership abilities can be enhanced to improve staff performance.

Ho2 – NeuroLeadership abilities cannot be enhanced to improve staff performance.

H3- Emotions relate to staff performance during organisational change.

Ho3 – Emotions do not relate to staff performance during organisational change.

Therefore, the main research question of this study is as follows:

How to identify and manage the impact of NeuroLeadership during organisational change?

The main research question is approached and answered by the following sub-research questions.

1. To study the concept of organisational change and the impact on staff performance.
2. To investigate the impact of NeuroLeadership on staff performance during organisational change.
3. To study the impact of the emotions of staff during organisational change.

As part of the research method, the descriptive evaluative research methodology was used for analysis where data was collected through surveys based on the assumption that this would help produce more accurate results. According to Collis & Hussey (2014), the descriptive evaluative research methodology relies on responses from people that are written down in order to be subsequently analysed by carrying out surveys.

Although survey research can yield data that are compared and analysed at a more complicated level, the simplest use to which survey data can be put is a description of how the total sample has distributed itself on the response alternatives for a single questionnaire item. Two critical components of survey research are sound methodology and well-designed data collection instruments. It is important that data collection instruments used for surveys ensure the ability to collect standardised information and do so in a way that will yield quantifiable results. The same instruments should be distributed to all subjects so that data can be summarised and compared. Although there are a variety of potential methods and instruments, questionnaires and individual interviews are the most common collection techniques used in survey research (Collis & Hussey, 2014).

3.2.1 Quantitative Research Method/Model

The following definition, taken from Teo (2013), describes what is meant by quantitative research methods very well:

Quantitative research is explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics).

Quantitative research mainly consists of numbers and statistics. It includes methods that give countable results. The collected counted information can be used to determine averages, highs and lows and the rankings of an item when compared numerically with another one. For example, if a survey questionnaire which consists of several multiple choice questions is developed it is easy to count the number of persons who answered and those who did not answer that question in certain way. So, the study design when using a quantitative method is basically subject to statistical assumptions and conditions. The quantitative research method helps produce data in statistical form that was converted to numbers. With quantitative research the researcher was able to measure how a person feels, thinks and works in a particular fashion while carrying out surveys on participants (Collis & Hussey, 2014).

Despite its limitations, quantitative methods have been more prominent in social sciences traditionally due to the fact that natural sciences and their standard methods were seen as a model in this field. The main strength of quantitative research is that it is neutral and easily generalisable; however, it is challenging to gauge the theoretical constructs (e.g. innovation) in social sciences and proxying them with several variables usually undermines establishing causality (Flick, 2014).

The most commonly used quantitative techniques comprise of the experimental method, observation techniques and survey research. A three part structured questionnaire was used as part of this research approach encompassing rating scales, refer to Appendix 1.

Part 1 of the questionnaire focused on questions relating to organisational change which relates to hypotheses H1 and Ho1. Part 2 of the survey questions relates to H3 and Ho3 and has been adapted (and changed) from a study carried out at the Otago Polytechnic on the impact of organisational restructuring on employee commitment (Theissen, 2004). Part 3 of the survey focused on leadership abilities which relates to H2 and Ho2.

3.2.2 Qualitative Research Method/Model

It is always a good idea to compare quantitative with qualitative research, to which it is usually put in opposition. While quantitative research is based on numerical data analysed statistically, qualitative research uses non-numerical data. Qualitative research is actually an umbrella term encompassing a wide range of methods, such as interviews, case studies, ethnographic research and discourse analysis, to name just some examples (Gioia *et al.*, 2012).

The difference between quantitative and qualitative research is often seen as quite fundamental, leading people to talk about 'paradigm wars' in which quantitative and qualitative research are seen as warring and incommensurable fractions. Many researchers define themselves as either quantitative or qualitative. Where does this idea come from? This idea is linked to what is seen as the different underlying

philosophies and world views of researchers in the two 'paradigms' (also called 'epistemologies'). According to this view, two fundamentally different world views underlie quantitative and qualitative research. The quantitative view is described as being 'realist' or sometimes 'positivist', while the world view underlying qualitative research is viewed as being 'subjectivist' (Gioia *et al.*, 2012).

Unlike quantitative research qualitative research consists of an investigation that is based upon seeking answers to questions, systematic use of predefined set of procedures to answer the questions, collect evidence, produce findings that were not determined in advance, produce findings that are applicable beyond the immediate boundaries of the study. Qualitative research is basically important for obtaining culturally specific information about values, opinions, behaviours, and social contexts of particular populations. The study design in qualitative research consists of data collection and research questions that are adjusted according to what is taught (Gioia *et al.*, 2012).

The quantitative research method was selected for this research, due to the limitations for the researcher in not being able to investigate more in depth and to execute interviews with participants. This research is also limited to the available time of the researcher due to work requirements and current position in the organisation.

3.3 METHODS OF DATA COLLECTION AND ANALYSIS

3.3.1 Data Collection

Data was collected by implementing the quantitative research method approach by carrying out surveys. The surveys were completed by the respondents; therefore outside help was required for this research. The survey questions developed by the researcher were worded in plain English language, thus making it easy for participants to understand and encouraging them to complete the survey. The survey comprised of a series of Likert scale questions. Furthermore the

participants had the option of not answering questions they consider unsuitable (Brace, 2013).

3.3.2 Data sources

Evaluation is the process of systematically collecting data that represents the opinion and experience of its participants or other stakeholders. The primary data sources included 12 organisations including their, management and administration staff. The main data collection techniques used in this research study was the literature review and a three section questionnaire. Questionnaires has the advantage of taking it to a wider audience compared to interviews, but has a disadvantage of not being possible to customise it to individuals as it is possible with other methods of data collection.

3.3.3 Participants

The criteria for selecting participants comprised of management and administration staff to ensure an adequate number of participants took part to obtain data for the research. The number of staff within each organisation and category (management and administration) is adequate for carrying out this research. This also helps obtain the point of view of management and administration staff with regards to the research topic.

3.3.4 Population and Sample size?

The population for the three section questionnaire was 12 organisations including their, management and administration staff that is based in different cities across New Zealand. A sample population was drawn from the sampling frame. A sampling frame includes the actual number of employees in each organisation which was approximately 100 staff members. According to Patten (2004), the quality of the sample affects the quality of the research generalisations. Patten (2004), suggests the larger the sample size, the greater the probability the sample will reflect the general population. However, sample size alone does not constitute the ability to

generalise. Patten (2004), states that obtaining an unbiased sample is the main criterion when evaluating the adequacy of a sample. Patten also identifies an unbiased sample as one in which every member of a population has an equal opportunity of being selected in the sample. Therefore, the survey was sent to all managers and administration staff to ensure that every participant will have an equal chance of being tested thus minimising biasness. The questions that need to be answered and the data in the research will be categorised by undertaking a survey as stated in Appendix 1.

Patten (2004) suggests that a researcher should first consider obtaining an unbiased sample and then seek a relatively large number of participants. Patten (2004) provides a table of recommended sample sizes (n) for populations (N) with finite sizes, developed by Krejcie and Morgan and adapted by Patten (2004), was used to determine estimated sample size. According to the table, and for purposes of this study, the researcher used an estimated population size $N = 100$ and thus a sample size goal of $n = 80$.

3.3.5 Pilot questionnaire

An informal pilot questionnaire was emailed to a small group of employees at each of the 12 organisations, a total of seven. Conducting a local pilot questionnaire allowed the researcher to ask participants for suggestive feedback on the questionnaire and also helped eliminate author bias. Once the pilot questionnaire had been modified, the questionnaire was administered online to the stratified, random sample population.

Participants of the study were contacted by email explaining the research objective and asking them to participate. The email also contained a link to the Web-based questionnaire. Follow-up email contacts were sent to increase response rate.

The Web-based questionnaire was conducted using googledocs.com. The program offered many features including unlimited number of survey questions and the capability to export data for statistical analysis. The programme also provided security including the option to turn on SSL (Secure Sockets Layers) to utilise data

encryption and provide data protection. Responses to the survey were recorded, exported in a spreadsheet, and transferred to Statistical Package for Social Sciences (SPSS) tool which is analytical software used for data analysis.

3.3.6 Validity of the data collection instruments

Validity means ability of the research method to find accurate reality. If the research is said to be valid then it really means that what was intended to be measured has been measured accurately. Validity is quite important if the researcher is doing in- depth studies on individuals, small groups or situations. If the researcher knows that his research is valid then the researcher can be confident on the findings that really show some uniqueness in the issue being studied. If the researcher lacks validity then it means that there was lack of truth in the findings (Ritchie *et al.*, 2014).

The validity of this research is calculated by sending a questionnaire to the employees of 12 organisations. The required results to conclude the research are found through the online questionnaire response of the employees. The study includes an online questionnaire link sent to CEO's and GM's and then forwarded to the employees of the organisation. There are 100 employees in the 12 organisations and 91 responded to the questionnaire. Hence, the response rate is 91% and therefore the research is valid.

3.3.7 Reliability of the data collection instruments

Reliability means to measure consistency in producing similar results on different but comparable occasions. If research is said to be reliable that means if it is replicated, similar or identical results will be shown. If researchers know that their research is reliable then there is less risk of their taking a chance pattern or trend exhibited by their sample and using it to make assumptions about the population as whole (Ritchie *et al.*, 2014).

The reliability of the research is also said to have been proven as the researcher pre-tested the questionnaire. In this research a pilot questionnaire was

sent to the thesis supervisor and to a sample size of employees at a few organisations to check the reliability before the final work was ready to be sent to the respondents. The reason for the pre-test is to check that the information is appropriate for the research or not. In order to make the research more reliable the empirical study is combined with theoretical study. The researcher found the research to be reliable because the results found were as expected and more than 50 per cent of the employees of the organisation responded to the survey. Hence, the research is reliable.

3.3.8 Ethical considerations

Ethics approval was obtained for this research while taking into account cultural and social sensitivity issues as surveys will be carried out on a diverse range of participants. Participants came from different cultural backgrounds, however no contentious issues was included in the questionnaire.

The entire research process was supervised by the researcher's allocated supervisor. All survey questions was revised and reassessed by the researcher's supervisor before it was sent out. The research questions was designed logically and ethically to be culturally inoffensive.

All participants were given adequate notice in regards to the survey while stating the duration it would entail. The research commenced only after gaining the Unitec Research Ethics Committee (UREC) approval on ethics number 2013-1048.

Below are some of the ethical factors that were taken into account during the research process.

- Participation will be by consent and voluntary.
- Participant's permission will be acquired by signing a formal consent form before undertaking any surveys.

- All likely risks such as truncation which can cause delay and loss of survey associated with the research will be conveyed to the participants before undertaking the surveys.
- Participants will have the choice not to answer any question which they might consider to be unsuitable thus avoiding any conflict of interest.
- Participants will be allowed to clarify any queries and doubts that they might have about the survey and the research from the researcher.
- All documents that will be used during the research process such as the letter of introduction, the consent form and the letter of information will be worded in plain English making it as easy to understand for participants, thus avoiding deception of any kind.
- Data will be made available only to people that are related to the research such as the primary and secondary supervisors, the examiners and the data processors.
- All data collected from the participants will be kept in strict confidence to adhere with the New Zealand Privacy Act. The soft copy will be kept in a password protected computer while the hard copies will be locked away in a filing cabinet at the researcher's house.

All research data was collected only by the researcher. Therefore, no other significant ethical issues would be problematic for this research.

3.3.9 Analysis of Data and Variables

The data and variables in this research were analysed in the following manner:-

The data and variables collected were analysed using Microsoft Excel as well as the Statistical Package for Social Sciences (SPSS) tool which is analytical software used for data analysis. SPSS is statistical software implemented by a variety of organisations in order to resolve various business as well as research problems. Hence, SPSS was used for documenting the data and analysing the quantitative data that was collected through surveys (Wagner, 2011).

In statistics, regression analysis is a statistical technique for estimating the relationships among variables. It includes many techniques for modelling and analysing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps one understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed. Most commonly, regression analysis estimates the conditional expectation of the dependent variable given the independent variables that is, the average value of the dependent variable when the independent variables are fixed. Less commonly, the focus is on a quantile, or other location parameter of the conditional distribution of the dependent variable given the independent variables. In all cases, the estimation target is a function of the independent variables called the regression function. In regression analysis, it is also of interest to characterise the variation of the dependent variable around the regression function, which can be described by a probability distribution (Kleinman & Horton, 2011).

Regression analysis is widely used for prediction and forecasting, where its use has substantial overlap with the field of machine learning. Regression analysis is also used to understand which among the independent variables are related to the dependent variable, and to explore the forms of these relationships. In restricted circumstances, regression analysis can be used to infer causal relationships between the independent and dependent variables. However this can lead to illusions or false relationships, so caution is advisable for example, correlation does not imply causation (Kleinman & Horton, 2011).

Standardised editing and coding procedures will not be used. All the data collected will be articulated and communicated in two groups i.e. the perception and opinion of management and the perception and opinion of administration staff with regards to the topic. This in turn ensures determining how NeuroLeadership can enhance better managing of staff during organisational change to ensure motivational efficiency with regards to emotions.

The variables that will be investigated concurrently would comprise of age, category (management and administration) and years of service together with their level of designation.

3.4. CONCLUSION

This chapter has outlined the purpose of research design in both descriptive and explanatory research. In explanatory research the purpose is to develop and evaluate causal theories. The probabilistic nature of causation in social sciences, as opposed to deterministic causation, was discussed. Research design is not related to any particular method of collecting data or any particular type of data. Any research design can, in principle, use any type of data collection method and can use either quantitative or qualitative data. Research design refers to the structure of an enquiry: it is a logical matter rather than a logistical one.

When designing research it is essential that we identify the type of evidence required to answer the research question in a convincing way. This means that we must not simply collect evidence that is consistent with a particular theory or explanation. Research needs to be structured in such a way that the evidence also bears on alternative rival explanations and enables us to identify which of the competing explanations is most compelling empirically. It also means that we must not simply look for evidence that supports our favourite theory: we should also look for evidence that has the potential to disprove our preferred explanations.

The researcher discussed what quantitative and qualitative research is. It was said that quantitative research is about explaining phenomena by collecting quantitative data, which are analysed by mathematically based methods. The fact that the data have to be quantitative does not mean that they have to be naturally available in quantitative form. Non-quantitative phenomena can be turned into quantitative data through our measurement instruments. Quantitative research is often placed in opposition to qualitative research. In many cases, this turns into a 'paradigm war', which is seen to result from apparently incompatible world views underlying the methods. When you look closer at researchers' actual beliefs, it

appears that the so-called subjectivist (qualitative) versus realist (quantitative) divide is not that clear-cut. Many researchers take a pragmatic approach to research, and use quantitative methods when they are looking for breadth, want to test a hypothesis, or want to study something quantitative. If researchers are looking for depth and meaning they will prefer to use qualitative methods.

3.5 SUMMARY OF THE CHAPTER

Research design, methodology / research methods and methods of data collection and analysis was discussed in this chapter. The three hypotheses were stated and the research and sub questions were also listed. In the next chapter, Chapter 4, the research findings are discussed and the research questions are answered and hypotheses are assessed as valid or invalid.

CHAPTER 4

RESEARCH FINDINGS

4.1 INTRODUCTION

In the previous chapter the researcher outlined the purpose of research design in both descriptive and explanatory research. The researcher has discussed what quantitative and qualitative research is and methods of data collection and analysis was discussed. In this chapter the research findings are discussed and the research questions are answered and hypotheses are assessed as valid or invalid.

Most research published in academic journals has been peer-reviewed. This means that the author's reference to other published work was subject to the scrutiny of other experts in the same field. Generally, this is the type of research that researchers want to write about as it has been checked for robustness. In this chapter the researcher will present findings based on the research methodology used in Chapter 3 using the regression analysis process used in the Statistical Package for Social Sciences (SPSS) tool with the assistance of my supervisor Dr Andries Du Plessis. The researcher provides evidence on how key neuroscience principles are incorporated into a major organisation-wide change initiative so that its leaders could perhaps minimise the impact of change while maintaining employee engagement and focus. The results that measured whether or not positive statistically significant changes occurred in management behaviour as a result of the training, from the perspective of both manager-participants who attended the training, and manager-participants' subordinates.

The primary data sources include 12 organisations including their, management and administration staff that is based in different cities across New Zealand. A sample population was drawn from the sampling frame. A sampling

frame includes the actual number of employees in each organisation which was approximately 100 staff members. The main data collection techniques used in this research study was the literature reviews and a 3 part questionnaire. The criteria for selecting participants comprised of management and administration staff to ensure an adequate number of participants took part to obtain data for the research. The number of staff within each organisation and category (management and administration) will be adequate for carrying out this research. This also helps obtain the point of view of management and administration staff with regards to the research topic.

4.2. FINDINGS

4.2.1 Results from multiple regression analysis

Regression analysis is used to identify the significance of the relationship between the dependent and independent variables (Kleinman & Horton, 2011). The questionnaire survey was aimed at testing questionnaire item loadings on factors for the main constructs of measures, furthermore to investigate the correlation between these components in order to test the propositions and hypothesis. To explore such issues, the researcher assembles data on the underlying variables of interest and employs regression to estimate the quantitative effect of the causal variables upon the variable that they influence. The researcher also typically assesses the “statistical significance” of the estimated relationships, that is, the degree of confidence that the true relationship is close to the estimated relationship.

4.2.1.1 Analysing - H1 - Does organisational change have an impact on staff performance?

As this study seeks to identify if the position a person holds in an organisation, which is treated as the dependant variable has an impact on their attitude and effects on work and self towards organisational change which are the independent variables. Table 4.1 to 4.9 will provide evidence relating to organisational change which relates to hypotheses H1- organisational change does have an impact on staff

performance and Ho1 – organisational change does not have an impact on staff performance.

Position in Organisation as dependent variable

Table 4.1: Model summary of the total sample (Position in Organisation as dependent variable)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.863 ^a	0.744	0.742	8.83188
a. Predictors: (Constant), Attitude, Effects on work and self				

Regression analysis was performed where the dependent variable was Position in the Organisation and the independent variables were the attitude and effects on work and self towards organisational change. These two variables, when entered into the model, explained 74% of the variance in Position in Organisation.

Table 4.2: ANOVA results for the total sample (Position in Organisation as dependent variable)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47503.232	2	23751.616	304.500	.000 ^a
	Residual	16302.444	89	78.002		
	Total	63805.677	91			
a. Predictors: (Constant) Attitude, Effects on work and self						
b. Dependent Variable: Position Organisation						

As the ANOVA table (4.2) above indicates, the significance (0.000) is smaller than .05. The 74% of variance can therefore be concluded as meaningful and significant.

Table 4.3: Beta coefficients for the total sample (Position in Organisation as dependent variable)

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Standard Error	Beta		
1	(Constant)	4.634	2.018		2.297	.023
	Attitude	.536	.110	.369	4.872	.000
	Effects on work and self	.739	.108	.519	6.858	.000
a. Dependent Variable: Position Organisation						

As Table 4.3 indicates, each independent variable contributes significantly to the variance in Position in Organisation, as they are both smaller than .05.

Table 4.4: Model summary of the total sample (Position in Organisation as dependent variable)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.720 ^a	0.518	0.513	11.40325
a. Predictors: (Constant), Loyal, Adapt to changes				

Regression analysis was performed where the dependent variable was Position in Organisation and the independent variables were the loyalty and adapt to changes. These two variables, when entered into the model, explained 52% of the variance in Position in Organisation.

Table 4.5: ANOVA results for the total sample (Position in Organisation as dependent variable)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30731.127	2	15365.563	112.185	.000 ^a
	Residual	28625.897	89	136.966		
	Total	59357.023	91			
a. Predictors: (Constant) Loyal, Adapt to changes						
b. Dependent Variable: Position Organisation						

The significance is smaller than .05, as the ANOVA table above indicates. The 52% of variance can therefore be concluded as meaningful and significant.

Table 4.6: Beta coefficients for the total sample (Position in Organisation as dependent variable)

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Standard Error	Beta		
1	(Constant)	21.883	2.674		8.185	.000
	Loyal	.531	.146	.378	3.639	.000
	Adapt to changes	.498	.143	.363	3.487	.001
a. Dependent Variable: Position Organisation						

Each independent variable contributes significantly to the variance in Position in Organisation, as they are both smaller than .05. This is indicated in Table 4.6 above.

Table 4.7: Model summary of the total sample (Position in Organisation as dependent variable)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.443 ^a	0.196	0.189	13.12458
a. Predictors: (Constant), Encourage, Successful				

Regression analysis was performed where the dependent variable was Position in Organisation and the independent variables Encourage and Successful. When entered into the model, these two variables explained 20% of the variance in Position in Organisation.

Table 4.8: ANOVA results for the total sample (Position in Organisation as dependent variable)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8794.590	2	4397.295	25.528	.000 ^a
	Residual	36001.221	89	172.255		
	Total	44795.811	91			
a. Predictors: (Constant) Encourage, Successful						
b. Dependent Variable: Position Organisation						

As ANOVA Table 4.8, above, indicates the significance is smaller than .05. The 20% of variance can thus be concluded as meaningful and significant.

Table 4.9: Beta coefficients for the total sample (Position in Organisation as dependent variable)

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Standard Error	Beta		
1	(Constant)	40.191	2.998		13.404	.000
	Encourage	.446	.164	.319	3.889	.021
	Successful	.399	.160	.334	2.487	.014
a. Dependent Variable: Position Organisation						

As Table 4.9 indicates, each independent variable contributes significantly and meaningfully to the variance in Position in Organisation, as it is smaller than .05

4.2.1.2 Analysing – H3 – Does emotions relate to staff performance during organisational change?

The responses from the survey questionnaire was analysed and as per table 4.10 to 4.13 which is from part 2 of the survey questions, which relates to H3- Emotions relate to staff performance during organisational change and Ho3 – Emotions do not relate to staff performance during organisational change. These questions have been adapted from a study carried out at the Otago Polytechnic on the impact of organisational restructuring on employee commitment.

Table 4.10: Manager-participant survey effectiveness questions

1.	This organisation really inspires the very best in me in the way of job performance.
2.	I feel very loyal to this organisation.
3.	I would be willing to accept almost any type of work assignment to stay with this organisation.
4.	It would take very little change in my present circumstances to cause me to leave this organisation.
5.	I have a clear understanding of what the organisation expects of me in my current role.
6.	I do not have good understanding about my responsibilities with respect to my role.
7.	I feel like I lack the skills to effectively carry out my job.
8.	I feel that I have been assigned too many responsibilities.
9.	My role has been reduced in importance.
10.	I feel secure in my job.
11.	I feel that the Leadership Team has the right people involved to make this change happen?
12.	I feel that the decision making is effective in the Leadership Team.
13.	I feel that my line manager has done all they can to help me understand exactly what is expected of me following the changes to the organisation.
14.	I feel that my line manager will help me to understand how I can support and adapt to implement the changes needed.
15.	I believe that management has been at least as honest with bad news as good news about changes to the organisation.
16.	I am not learning enough in my present role for taking up higher responsibility.
17.	I do receive the necessary training and support to enable me to do my job more effectively.
18.	The amount of work I do affects the quality of life I like to maintain.
19.	My job interferes with my personnel life.
20.	My job does not give me enough time to spend with my family.
21.	My family and friends complain that I do not spend enough time with them due to the nature of my role.
22.	The scope of promotion is limited within my role.
23.	Other employees within my department do not give enough attention and time to my role/position.
24.	I have not had the right training for my current role.
25.	I am not able to use my training and expertise in my current role.

Note: Questions 11 through to 15 are used as primary effectiveness measures and only responses from management level was analysed for this part.

Table 4.11: Subordinate survey effectiveness questions

1.	This organisation really inspires the very best in me in the way of job performance.
2.	I feel very loyal to this organisation.
3.	I would be willing to accept almost any type of work assignment to stay with this organisation.
4.	It would take very little change in my present circumstances to cause me to leave this organisation.
5.	I have a clear understanding of what the organisation expects of me in my current role.
6.	I do not have good understanding about my responsibilities with respect to my role.
7.	I feel like I lack the skills to effectively carry out my job.
8.	I feel that I have been assigned too many responsibilities.
9.	My role has been reduced in importance.
10.	I feel secure in my job.
11.	I feel that the Leadership Team has the right people involved to make this change happen?
12.	I feel that the decision making is effective in the Leadership Team.
13.	I feel that my line manager has done all they can to help me understand exactly what is expected of me following the changes to the organisation.
14.	I feel that my line manager will help me to understand how I can support and adapt to implement the changes needed.
15.	I believe that management has been at least as honest with bad news as good news about changes to the organisation.
16.	I am not learning enough in my present role for taking up higher responsibility.
17.	I do receive the necessary training and support to enable me to do my job more effectively.
18.	The amount of work I do affects the quality of life I like to maintain.
19.	My job interferes with my personnel life.
20.	My job does not give me enough time to spend with my family.
21.	My family and friends complain that I do not spend enough time with them due to the nature of my role.
22.	The scope of promotion is limited within my role.
23.	Other employees within my department do not give enough attention and time to my role/position.
24.	I have not had the right training for my current role.
25.	I am not able to use my training and expertise in my current role.

Note: Questions 11 through to 15 are used as primary effectiveness measures and only subordinate responses was analysed for this part.

See Figure 4.1, which shows the effectiveness scale used in the manager-participant and subordinate surveys. The effectiveness scale ranged from 1 to 5, with 1 being associated with participant never feeling this way, and 5 being associated with the participant always feeling this way.

Mark 1 – If you never feel this way
Mark 2 – If you rarely feel this way
Mark 3 – If you from time to time feel this way
Mark 4 – If you often feel this way
Mark 5 – If you always feel this way

Figure 4.1: Likert Scale Used to Measure Training Effectiveness Ratings in Manager-participant and Subordinate Surveys.

“Effect” sizes for all results are reported using Cohen’s d , with the following effect size guidelines provided by Steinberg (2011): “small effect = 0.4 standard deviation or less, medium effect = 0.5 to 0.7 standard deviation, and large effect = .8 standard deviation or more”.

The manager-participant results of the study include 72 (of a possible 91) responses from manager-participant respondents. As shown in table 4.12, manager-participant’s self-assessed behaviour ratings “before” (pre) training and “after” (post) training indicated statistically significant positive mean score shifts for all three of the following primary program measures.

Table 4.12 Contrast of manager-participants self-reported assessment of “before” (pre) and “after” (post) training behavioural effectiveness (N=72).

Variable	Before Training		After Training		95%CI				Cohen's d
	M	Sub	M	Sub	t(72)	P	LL	UL	
I feel that the Leadership Team has the right people involved to make this change happen.*	7.07	1.84	8.14	1.59	-15.6	0.001	-1.21	-0.94	-0.62
I feel that my line manager has done all they can to help me understand exactly what is expected of me following the changes to the organisation.*	6.96	1.53	7.87	1.3	-16.79	0.001	-1.01	-0.80	-0.64
I feel that my line manager will help me to understand how I can support and adapt to implement the changes needed.*	7.08	1.71	7.73	1.56	-11.61	0.001	0.76	0.54	0.4
I feel that the decision making is effective in the Leadership Team.	6.61	1.53	7.58	1.56	-15.26	0.001	-1.10	-0.85	-0.63
I believe that management has been at least as honest with bad news as good news about changes to the organisation.	6.84	1.61	7.64	1.47	-14.62	0.001	-0.9	-0.69	-0.52

Note: *Indicates a primary programme effectiveness variable; see Table 4.10 for the complete question asked of respondents. CI = confidence interval; LL = lower limit; UL = upper limit.

- “I feel that the Leadership Team has the right people involved to make this change happen” before training (M = 7.07, SD = 1.84) and after training (M = 8.14, SD = 1.59), $t(72) = -15.60$, $p < .001$, $d = -0.62$ (one-tailed), with Cohen’s d (-0.62) indicating a medium effect size.
- “I feel that my line manager has done all they can to help me understand exactly what is expected of me following the changes to the organisation.” before training (M = 6.96, SD = 1.53) and after training (M = 7.87, SD = 1.30), $t(72) = -16.79$, $p < .001$, $d = -0.64$ (one-tailed), with Cohen’s d (-0.64) indicating a medium effect size.

- “I feel that my line manager will help me to understand how I can support and adapt to implement the changes needed.” before training (M = 7.08, SD = 1.71) and after training (M = 7.73, SD = 1.56), $t(72) = -11.61$, $p < .001$, $d = -0.40$ (one-tailed), with Cohen’s d (-0.40) indicating a small effect size.

As shown in Table 4.12 manager-participant’s self-assessed behaviour ratings “before” (pre) training and “after” (post) training indicated statistically significant positive mean score shifts for all three of the following primary program measures.

See Table 4.13 for results of primary and secondary program measures to see subordinates self-assessed behaviour change. The subordinate’s results of the study include 19 (of a possible 91) responses collected from manager participant respondents’ subordinates.

Table 4.13: Contrast of subordinate’s reported assessment of “before” (pre) and “after” (post) training effectiveness of their manager-participant’s behaviour (N=19)

Variable	Before Training		After Training		95%CI				Cohen's d
	M	Sub	M	Sub	t(19)	P	LL	UL	
I feel that the Leadership Team has the right people involved to make this change happen.*	6.24	2.98	6.87	3.06	-13.29	0.001	-0.72	-0.53	-0.21
I feel that my line manager has done all they can to help me understand exactly what is expected of me following the changes to the organisation.*	6.11	3.17	6.59	3.26	-10.85	0.001	-0.57	-0.39	-0.15
I feel that my line manager will help me to understand how I can support and adapt to implement the changes needed.*	6.58	2.84	7.24	2.92	-13.34	0.001	-0.76	-0.56	-0.23
I feel that the decision making is effective in the Leadership Team.	6.74	3.00	7.18	3.07	-9.43	0.001	-0.53	-0.35	-0.14
I believe that management has been at least as honest with bad news as good news about changes to the organisation.	6.24	2.96	6.78	3.09	-11.87	0.001	-0.63	-0.45	-0.18

Note: *Indicates a primary programme effectiveness variable; see table 4.11 for the complete question asked of respondents. CI = confidence interval; LL = lower limit; UL = upper limit.

- “I feel that the Leadership Team has the right people involved to make this change happen” before training (M = 6.24, SD = 2.98) and after training (M = 6.87, SD = 3.06), $t(19) = -13.29$, $p < .001$, $d = -0.21$ (one-tailed), with Cohen’s d (-0.21) indicating a small effect size.
- “I feel that my line manager has done all they can to help me understand exactly what is expected of me following the changes to the organisation.” before training (M = 6.11, SD = 3.17) and after training (M = 6.59, SD = 3.26), $t(19) = -10.85$, $p < .001$, $d = -0.15$ (one-tailed), with Cohen’s d (-0.15) indicating a small effect size.
- “I feel that my line manager will help me to understand how I can support and adapt to implement the changes needed” before training (M = 6.58, SD = 2.84) and after training (M = 7.24, SD = 2.92), $t(19) = -13.34$, $p < .001$, $d = -0.23$ (one-tailed), with Cohen’s d (-0.23) indicating a small effect size.

4.2.1.3 Analysing – H2 Can NeuroLeadership abilities be enhanced to improve staff performance?

The responses from the survey questionnaire were analysed and as per table 4.14 to 4.26 which is from part 3 of the survey questions, which relates to H2- NeuroLeadership abilities can be enhanced to improve staff performance and Ho2 – NeuroLeadership abilities cannot be enhanced to improve staff performance.

In the following tables the researcher will provide demographic information of the respondents by looking at gender, age, experience. This information is important to the study because it helps the reader to understand some pertinent issues that may have a bearing on the analysis; for instance how the demographic information relates to the organisational change process by leaders and subordinates.

Table 4.14: Respondents by gender, there were 100 respondents targeted however only 91 responded.

		Frequency	Percentage
Valid	Male	51	56%
	Female	40	44%
	Total	91	100%
Missing		9	
Total		100	

Table 4.14 illustrates the distribution of the respondents according to gender. It shows that the majority, that is, 51 (56%) of the respondents were male, while 40 (44%) were female. The fact that there were more males in the sample than females is not by design; and these gender imbalances indicate that there are more males than females in small business in New Zealand.

Table 4.15: Respondents by age shows the distribution of the respondents according to their age as illustrated in the table below.

	Frequency	Percentage
26-33	21	23%
34-42	33	36%
43-50	11	12%
50 and over	26	29%
Total	91	100%

The above table illustrates that the majority (59%) of the respondents were between the ages of 26 and 42. Each individual comes into an organisation with unique needs and objectives, preferences for ways of doing things and hopes for wide-ranging satisfactions. Harnessing the unique talents of the individual and co-ordinating their activities towards the achievement of the organisation's objectives by efficient and effective means, it was argued, can do this.

Table 4.16: Respondents according to level in organisation.

	Frequency	Percentage
Admin	19	21%
Management	47	52%
Executive	25	27%
Total	91	100%

The above table illustrates that the majority (79%) of the respondents is in a management or executive position in the organisation.

Table 4.17: Respondents according to duration at current organisation

	Frequency	Percentage
Less than 1 year	11	12%
1 – 3 years	18	20%
3 – 5 years	28	31%
5 – 10 years	21	23%
Longer than 10 years	13	14%
Total	91	100%

This section has provided a clear picture of the respondents involved in this research project. It has given clear information on the gender, age, level, experience, and responsibility of the respondents. Such data becomes very useful during the analytic process as it informs the researcher of the calibre of the respondents.

In the following tables the regression analysis was performed using Position in the Organisation as the dependant variable and resolve disagreements and consider people's skills and interests, was used as the independent variables.

Table 4.18: Model summary of the total sample (Position in Organisation as dependent variable)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.725 ^a	0.713	0.710	8.21378
a. Predictors: (Constant), Resolve Disagreements, consider people's skills and interests				

Regression analysis was performed where the dependent variable was Position in the Organisation and the independent variables were resolve disagreements and

considers people's skills and interests. These two variables, when entered into the model, explained 71% of the variance in Position in Organisation.

Table 4.19: ANOVA results for the total sample (Position in Organisation as dependent variable)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42011.198	2	25863.269	303.478	.000 ^a
	Residual	19255.367	89	79.112		
	Total	61266.565	91			
a. Predictors: (Constant) Resolve Disagreements, consider people's skills and interests						
b. Dependent Variable: Position Organisation						

As the ANOVA table (4.19) above indicates, the significance (0.000) is smaller than .05. The 71% of variance can therefore be concluded as meaningful and significant.

Table 4.20 Beta coefficients for the total sample (Position in Organisation as dependent variable)

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Standard Error	Beta		
1	(Constant)	4.222	1.996		2.378	.025
	Disagreements	.499	.125	.369	4.563	.000
	consider people's skills and interests	.689	.108	.519	6.967	.000
a. Dependent Variable: Position Organisation						

As Table 4.20 indicates, each independent variable contributes significantly to the variance in Position in Organisation, as they are both smaller than .05.

Table 4.21: Model summary of the total sample (Position in Organisation as dependent variable)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.738 ^a	0.637	0.633	10.71236
a. Predictors: (Constant), Encourage, Own Actions				

Regression analysis was performed where the dependent variable was Position in Organisation and the independent variables were encouraged and own actions.

These two variables, when entered into the model, explained 63% of the variance in Position in Organisation.

Table 4.22: ANOVA results for the total sample (Position in Organisation as dependent variable)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37569.334	2	17556.264	116.562	.000 ^a
	Residual	21339.885	89	122.952		
	Total	58909.219	91			
a. Predictors: (Constant) Encourage, Own Actions						
b. Dependent Variable: Position Organisation						

The significance is smaller than .05, as the ANOVA table above indicates. The 63% of variance can therefore be concluded as meaningful and significant.

Table 4.23: Beta coefficients for the total sample (Position in Organisation as dependent variable)

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Standard Error	Beta		
1	(Constant)	25.339	2.555		7.993	.000
	Encourage,	.519	.142	.383	3.528	.001
	Own Actions	.473	.137	.372	3.376	.001
a. Dependent Variable: Position Organisation						

Each independent variable contributes significantly to the variance in Position in Organisation, as they are both smaller than .05. This is indicated in Table 4.23 above.

Table 4.24: Model summary of the total sample (Position in Organisation as dependent variable)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.648 ^a	0.449	0.436	11.13279
a. Predictors: (Constant), Understand, Successful				

Regression analysis was performed where the dependent variable was Position in Organisation and the independent variables Understand and Successful. When entered into the model, these two variables explained 43% of the variance in Position in Organisation.

Table 4.25: ANOVA results for the total sample (Position in Organisation as dependent variable)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7948.63	2	4936.357	24.637	.000 ^a
	Residual	36113.382	89	169.896		
	Total	44062.012	91			
a. Predictors: (Constant) Understand, Successful						
b. Dependent Variable: Position Organisation						

As ANOVA Table 4.25, above, indicates the significance is smaller than .05. The 43% of variance can thus be concluded as meaningful and significant.

Table 4.26: Beta coefficients for the total sample (Position in Organisation as dependent variable)

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Standard Error	Beta		
1	(Constant)	39.229	2.761		12.985	.000
	Understand	.469	.171	.316	3.664	.021
	Successful	.378	.164	.330	2.396	.014
a. Dependent Variable: Position Organisation						

As Table 4.26 indicates, each independent variable contributes significantly and meaningfully to the variance in Position in Organisation, as it is smaller than .05

4.2.2 Findings from the analysis

The following three hypotheses are of concern: H1 - Organisational change does have an impact on staff performance; H2 - NeuroLeadership abilities can be enhanced to improve staff performance and H3 - Emotions relate to staff performance during organisational change.

Regression analysis found that attitude and effects on work and self towards organisational change contributed 74% and resolve disagreements and consider people's skills and interests contributed 71% of the variance in Position in Organisation and that this result was both meaningful and significant. All four

variables contributed significantly to the 74% & 71% of variance in Position in Organisation.

Fifty-two percent of the variance in Position in Organisation was contributed by loyalty and adapt to changes and sixty three percent was contributed by encourage and own actions, according to the regression analysis. As for Position in Organisation, this result was significant and meaningful and all four variables contributed significantly to the 52% of variance in Position in Organisation.

Finally, regression analysis found that Encourage and Successful contributed just 20% and Understand and Successful contributed 43% of the variance in Position in Organisation. This result was both meaningful and significant. The contribution by the Encourage and Successful, Understand and Successful variables were significant in explaining the 20% & 43% variance in Position in Organisation.

Therefore, all three hypotheses are accepted.

The main research question: How to identify and manage the impact of NeuroLeadership during organisational change, could therefore be confirmed and answered.

The responses for all the respondents in the survey questionnaire support sub research question 1, where it is asked how to effectively engage the support and creativity of an organisation's employees at the moment these attributes are most needed during an organisational change.

Referring to sub research question 2: How NeuroLeadership abilities can be enhanced to improve staff performance during organisational change and sub research question 3: How does emotions relate to staff performance during organisational change, most of these ideas discussed above have implications in the field of neuroscience. The responses for all the respondents in the survey questionnaire also support sub research question 2 and 3 based on the need to create a burning platform atmosphere at work can trigger a limbic response in employees. Instead of motivating people to change in a positive way, a burning

platform makes them uncomfortable — thrusting change upon them. In another example, driving change from the top can trigger fear within employees because it deprives them of key needs that help them better navigate the social world in the workplace.

4.3. DISCUSSION

Understanding the brain's organising principle of minimising danger and maximising reward will help managers gain a better appreciation of how difficult change can be for individuals. Wide scale corporate change creates uncertainty and fear – messages that the brain interprets as threat. The result is employees react with a fear response (fight or flight) and cannot contribute their best thinking. Organisational change is a complex topic and requires a lot of conceptual thinking about future events – a task that requires a lot of cognitive resources. Managers will learn how to help themselves and others get into a more positive mental state (towards a state) so they could engage much needed cognitive resources for more effective problem solving, creativity, collaboration and innovation (Rock, 2009a).

Although a manager's role is to share important information to set the direction during change, he/she can build commitment and create alignment by facilitating conversations that invite employees to think about the future for them – filling in the gaps and connecting to where they are going and what it might mean for them personally. Skills such as asking permission, providing a clear context for the conversation and engaging the employee through skilful questioning can improve status, certainty and autonomy. The framework also keeps the conversation “solution-focused” to minimize activation of strong emotions that can result from a problem focused approach. The framework is a roadmap to help leaders actively engage the other person in identifying ways to move forward from a challenging situation (Whiting *et al.*, 2012).

Successful organisational change requires that employees create new mental maps how to move forward with a fresh perspective. In change conversations, the goal is to teach leaders how to help employees think in new ways by skilfully facilitating insight in others when faced with challenging situations or problems rather

than simply “telling” direct reports the answers. Table 4.1 to 4.9 provided evidence relating to organisational change where the dependent variable was Position in the Organisation and the independent variables were the attitude and effects on work and self towards organisational change, loyalty and adapting to changes and encourage and successful. The regression analysis explained 74%, 52% & 20% of the variance. Furthermore the significance of (0.000) is smaller than .05 and can therefore be concluded as meaningful and significant. The findings support sub research question 1, where it is asked how to effectively engage the support and creativity of an organisation’s employees at the moment these attributes are most needed during an organisational change which relates to hypotheses H1- organisational change does have an impact on staff performance and Ho1 – organisational change does not have an impact on staff performance and was accepted as valid.

The researcher is of the opinion that the active ingredient in facilitating change is supporting others to generate their own insights about how to move forward. Insight matters in change conversations because the moment of insight changes the brain in a way that linear problem-solving does not. Tables 4.18 to 4.26 shows the regression analysis that was performed using Position in the Organisation as the dependant variable and resolve disagreements / consider people’s skills and interests, encouraged / own actions and understand / successful was used as the independent variables. The regression analysis explained 71%, 63% & 43% of the variance. Furthermore the significance of (0.000) is smaller than .05 and can therefore be concluded as meaningful and significant. This shows that learning through insight is also more memorable than non-insight. New networks are created in the brain that helps us see a situation in a totally new way. Because of the burst of energy and the satisfaction of solving a problem on your own, insight creates a greater sense of ownership of the idea as well as the motivation to put the idea into action. When managers and employees alike see their way forward in change as a result of their own insights, buy-in and support of the change are more likely to happen. The findings support sub research question 2, where the question was asked how NeuroLeadership abilities can be enhanced to improve staff performance during organisational change, which furthermore relates to hypotheses H2- NeuroLeadership abilities can be enhanced to improve staff performance and Ho2 – NeuroLeadership abilities cannot be enhanced to improve staff performance.

Emotional regulation is one of the most important elements for managers in today's stressful and complex business environment – especially during times of wide scale organisational change. Having the ability to “stay cool under pressure” is key for maintaining focus and clear thinking. The responses from the survey questionnaire was analysed and as per table 4.10 to 4.13 which is from part 2 of the survey questions, which relates to sub research question 3: How does emotions relate to staff performance during organisational change and to hypotheses H3- Emotions relate to staff performance during organisational change and Ho3 – Emotions do not relate to staff performance during organisational change. 72% of respondents was at management level who support creating a burning platform atmosphere at work that can trigger a limbic response in employees.

As discussed earlier, the dynamics of organisational change can result in employees feeling quite threatened and resistant to change – just at a time when the organisation most needs creativity and great decision-making from its employees. Managers gained a greater understanding of the role of the limbic system as it tracks emotional responses common in change such as anxiety, fear, anger and uncertainty. We can certainly continue to make decisions but the brain is drawing on more automatic responses easily accessible to it. Organisational change constantly presents managers with new situations and challenges that they have not experienced in the past, so their automatic responses under pressure may not be the best solution. Also, when under threat, we take in less information from stimuli around us, so we may be more likely to miss information such as key words spoken to us, since our attention is more likely to be focused inward. Threat responses also cause us to err on the side of pessimism as we respond to our environment since the brain is on “heightened alert” for additional danger (Ludmer, Dudai & Rubin, 2011).

Finding the right word to identify an emotional sensation is a technique called labelling (Lieberman, 2009). The act of searching for and identifying a word that describes a feeling activates the right ventrolateral prefrontal cortex, the region that is central to any type of braking in the brain. Labelling can dampen down the limbic system and engage the brain's braking system so that critical resources increase in the PFC according to Lieberman (2009).

When stronger emotional responses are in play, cognitive reappraisal is a second tool for helping managers “stay cool” (Ochsner, 2008). Engaging the PFC in order to think about a situation from a different, more positive perspective increases activation of the right and left ventrolateral prefrontal cortex. At the same time, the activation of the limbic system is reduced. Helping managers learn to change the focus of their attention from the narrative network (our default) to the direct experience network not only increases their ability to take in more external data, but also increases awareness of their own internal mental state. Increased internal awareness can lead to smarter choices about actions and quicker access to emotional regulation techniques according to Ochsner (2008).

The researcher is of the opinion that all managers will learn to actively manage the relevant areas throughout a meeting so that team members are in “a toward” state and actively engaged. The responses for all the respondents in the survey questionnaire support sub research question 1, where it is asked how to effectively engage the support and creativity of an organisation’s employees at the moment these attributes are most needed during an organisational change. This also guides the manager in how to be a facilitator -- not a driver of a meeting so that team status is built and autonomy is protected. Inviting the group to set meeting expectations, add to agendas and actively contribute their ideas helps create a greater sense of autonomy. The “solution focus” of the meeting framework creates certainty for a team that the conversation has a useful, positive direction. Managers also learn that helping the team generate “stretch” goals can add a just enough “healthy threat” to inspire a team to find ways to work together. In organisational change, teams are often asked to work toward goals that are new to them – ones that they do not have existing brain maps to rely on. Managers can facilitate insights from a group – just as in a one-to-one conversation, so that the team sees a new way forward. New ideas can increase team status as well as generate energy to move the team into setting actions. The framework can be extremely useful for incorporating new team members so that all team members begin to relate to each other as “in-group” (instead of “out-group”) members (Whiting *et al.*, 2012).

The researcher believes that giving feedback to others in order to improve performance and facilitate change often results in a strong threatening reaction

unless handled well. Threats to status, autonomy, relatedness and fairness can be easily activated when a manager approaches a feedback conversation by telling an employee what is wrong, and how to fix it. Focusing on the problem during a feedback conversation can also increase limbic arousal and negatively affecting the cognitive resources available for effective problem-solving. 77% of respondents asked for more detail around the feedback they received from their manager on a major project, while only 11% of the respondents thought the feedback was one-sided.

Changing behaviour through feedback is also difficult because of the brain's strong "habit system" which has evolved to conserve energy by reacting to stimuli by drawing on stored past patterns and therefore, resisting change. Employees are less likely to react defensively if given the opportunity to find their own solutions and raise their own status while doing so. Employees are also more likely to implement actions necessary to change due to increased ownership of generating their own insight about how to move forward. Based on survey results 85% of respondents who is at management level support this as well when they responded to the question, when working with a team, I encourage everyone to work toward the same goal. The view is that managers will learn that successful self-directed feed-forward requires them to use emotional regulation techniques to inhibit the strong desire to give a solution to the employee to create "a toward state" in their conversation.

As a result of self-directed feed-forward, chances of change improve when an employee identifies a goal and creates the goal statement in an "if-then" format; an implementation intention. Implementation intentions give the brain a very specific cue to scan for – "If I find myself getting frustrated in a meeting" – and a very specific action to take – "I will take two deep breaths before sharing my thoughts." "By forming an implementation intention, the mental image of the specified situation or cue becomes highly activated and more readily accessible". A more general goal intention to change such as "I will handle my emotions more effectively in meetings" is too abstract for the brain to scan effectively. The constant monitoring required for a more general goal is taxing to the brain's resources and may be easily overridden by other distractions such as anxiety or a new short term goal, (Addas & Pinsonneault, 2015).

The third strategy for helping others embed new habits is quality follow up in the form of acknowledgement. When managers give authentic positive feedback to an employee, they are highlighting the behaviours they want to see more of. Acknowledgement is a way of reinforcing new wiring and maps for that person and cueing the brain to “do more of that action.” When there is a behaviour, the brain circuits are fragile until the behaviour is repeated often enough to be hardwired. Acknowledgment can be very useful to help an employee keep attention focused on new ideas and behaviours long enough to make strong neural connections. Acknowledgement of others for how they are growing, learning and challenging themselves can support a growth mind-set (Dweck, 2008) that drives engagement and improved performance. 73% of respondents, responded to the following two questions, I feel that my line manager will help me to understand how I can support and adapt to implement the changes needed and your boss has given you feedback that you didn't do well on a major project with their response of always feeling this way and that they will ask for more detail about the feedback.

The majority of people are their own “worst critics” and easily find fault in themselves without the help of colleagues or managers or the dynamics of organisational change. The result is a noisy brain that may be in a threatening state as a result of our problem focus. Even mild threatening states interfere with our ability to think and perform at our best. Acknowledgement can be a powerful tool to help managers shift others into a quieter more positive brain state and better thinking.

Perhaps participants on managerial level may have rated their own behaviour change with larger effect sizes due to a social desirability bias (a wish to be perceived as “getting better” at management); or, alternatively, perhaps managers were more keenly aware of their own successes in their attempts to change their behaviour, when compared to the levels of their subordinate’s awareness. 71% of respondents at management level responded to the question my actions show people what I want from them with an often or very often response. On balance, perhaps subordinates were less likely to rate manager participant behaviour changes more favourably due to the difficult organisational changes that were occurring during the time in which the study was conducted. Nevertheless, the evidence shows

that 85% of subordinates did detect a positive and significant behavioural change in manager's behaviour in their response to the question I feel that my line manager has done all they can to help me understand exactly what is expected of me following the changes to the organisation. It is unclear as to whether or not subordinates would have been as aware of manager-participant behaviour changes, where observed, if the subordinates were not primed to make such observations – this could be an area for future research.

There may likely be practical limits to the statistical assumptions which can be made using the quantitative design in this study, such as the use of two separate pre and post surveys instead of just one survey. However, this design enabled a way to maintain the needed confidentiality and anonymity of respondents, and generated considerable sample sizes of matched-pair responses needed for paired-sample t-tests – this allowed for an innovative means to assess effectiveness from a manager-participant perspective, with a cross-check from the perspective of subordinates, and allowed a means by which to generalize and internally validate the results inside of the organisation.

4.4 SUMMARY OF THE CHAPTER

In this chapter the results from a multiple regression analysis was provided to substantiate the main research question: How to identify and manage the impact of NeuroLeadership during organisational change? It was also proven by the 3 sub research questions: How does organisational change impact staff performance?; How can NeuroLeadership abilities be enhanced to improve staff performance during organisational change?; How does emotions relate to staff performance during organisational change? The 3 stated hypotheses; H1- Organisational change does have an impact on staff performance; H2- NeuroLeadership abilities can be enhanced to improve staff performance and H3- Emotions relate to staff performance during organisational change were also verified as valid. It was discussed how difficult change can be for individuals and that successful organisational change requires that employees create new mental maps how to move forward with a fresh perspective. Further, that employees are more likely to implement actions necessary to change due to increased ownership of generating

their own insight about how to move forward and acknowledgement is a way of reinforcing new wiring and maps for that person and cueing the brain to “do more of that action.

In the following chapter the researcher integrates the research findings that were reviewed in Chapter 4 with the theories derived from the relevant literature.

CHAPTER 5

INTERPRETATION OF THE FINDINGS

5.1. INTRODUCTION

In the previous chapter the research findings was discussed and the research questions were answered and the three hypotheses were assessed as valid. In this chapter the author integrates the research findings that were reviewed in Chapter 4 with the theories derived from the relevant literature from Chapter 2 and gives the reader a detailed understanding of NeuroLeadership and its impact during organisational change.

5.2. NEUROLEADERSHIP

How can neuroscience add to the body of traditional leadership research on facilitating change? With estimates that some two thirds of all organisational change efforts fail or at best deliver mediocre results, leadership theorists assert that both organisations and organisational members view such initiatives as being more threat than opportunity. In assisting leadership theorists in understanding organisational member perceptions and expectations of change initiatives, how can neuroscientific understanding of the brain's approach-avoidance response – its fundamental organising principle to “minimize danger and maximize reward” – provide insight?

With leadership research showing that communication helps organisational members in coping with change, how can social cognitive neuroscience research on uncertainty, autonomy, and status improve leadership theorists' understanding of what makes such communications effective in reducing organisational member resistance? With most organisational change models or frameworks emphasizing the importance of establishing and communicating the goals and objectives of the

change initiative, how can social cognitive neuroscience and its research on the importance of goals on brain function, impact the importance of goals and goal setting in leading change? The researcher's interpretation therefore is by explaining functional differences in leader communications that would move organisational member thinking away from a resistive problem-solving orientation toward a far more receptive goal orientation.

Through their research on resistance to change, leadership theorists understand that getting people to change long entrenched habits, such as changing the way they work together in an organisation, is not easy. In providing guidance to organisations in overcoming such resistance, theorists have long touted the importance of organisational learning through such tools and techniques as coaching, mentoring, training, employee development programmes, executive development programmes, work assignments, and corporate universities as efforts to bring about improved employee performance; therefore to facilitate organisational change. In each case, the underlying research suggests that the success of such programmes is some function of the organisational member's level of self-awareness – a personal sense of strengths and weaknesses, and vision of continuous advancement and personal growth. How can neurosciences' growing understanding of the relationship between cognitive control and mindfulness assist theorists in defining more effective leadership development change tools and techniques?. How can neuroscience's growing understanding of neuroplasticity in the context of volition, interest and attention provide insights and guidance to leadership theorist's development quest, particularly in the growth areas of coaching and mentoring?

Leadership used to be quite simple. Leaders just needed to climb a mountain of broken bodies to the peak, picking up bags of money on the way, while issuing orders and knifing rivals. Once they got there, they could issue orders in the confidence that they would be obeyed. Otherwise, like Henry VIII, they could make dissenters a head shorter with a nod to their human resources executioner. Today, it seems, leadership has become a quest for enlightenment. No longer suitable for those "red in tooth and claw", leaders must be Zen-like in their wisdom and self-control in order to get the troops to stop deserting and do their very best (Ringleb, Rock & Ancona, 2012).

This modern approach to leadership is not about being nice (although that usually doesn't hurt). Neuroscience – the study of the brain – is able to give us clues about what people need to be able to do their best work, and that generally does not involve fear and an unapproachable leader. Which behavioural characteristics bring out true leadership? A fundamental requirement for promoting sustainable and resilient leadership in organisations, governments, and society is self-awareness and self-control. A self-aware leader integrates achievement, creativity, drive, emotional intelligence, and team building skills. A daunting reality of corporate leadership is that critical decisions made by intelligent, responsible people with the best information and intentions can be hopelessly flawed. The researcher is of the opinion that the active ingredient in facilitating change is supporting others to generate their own insights about how to move forward. Insight matters in change conversations because the moment of insight changes the brain in a way that linear problem-solving does not. This shows that learning through insight is also more memorable than non-insight. New networks are created in the brain that helps us see a situation in a totally new way. Because of the burst of energy and the satisfaction of solving a problem on your own, insight creates a greater sense of ownership of the idea as well as the motivation to put the idea into action. When managers and employees alike see their way forward in change as a result of their own insights, buy-in and support of the change are more likely to happen. The findings support sub research question 2, where the question was asked how NeuroLeadership abilities can be enhanced to improve staff performance during organisational change.

5.3. ORGANISATIONAL CHANGE

Most large organisations are undergoing anywhere from a handful to dozens of major change initiatives at any one time. These can include restructuring the way teams work together, reorganising distribution channels, finding new markets, undertaking six sigma audits, moving to lean manufacturing – right through to outsourcing whole functions such as manufacturing, HR or IT. The pace of these changes is not slowing down and there are no indications that it will any time soon.

As Schwartz and Rock illustrated in their article 'The Neuroscience of Leadership' (Strategy & Business Magazine, June 2006), change is pain: any kind of major change initiative requires people to apply focus and effort, to pay attention to bring about change. The resistance that we sense in any change process turns out to be real. Homeostasis, fear, and push-back make change on any scale a real challenge.

The interpretation of the findings leads to one of the key competencies organisations need to develop now that is a capacity to execute change effectively, across complex, chaotic, diverse and widely spread systems. Most organisations have a poor record in this area, and the need to improve this capacity is getting more urgent every year.

The Human Resources (HR) team is charged with driving the human side of change. Whether it is trying to prepare people for change, executing new processes, or dealing with the fallout if change doesn't go well, HR departments provide both the backbone and the arms and legs of any organisational change initiative. However the challenge is that HR is being downsized like never before. The people left in HR are strategic, not necessarily having the time to focus on driving change. To make this more difficult, HR is focused on not just one or two but five, ten, even twenty different change initiatives at once. These people need help; specifically they need help from people who know how to help them facilitate change. There is greater pressure on people to perform, faster pace of change, more uncertainty requiring thinking resources, creative workers requiring new resources and other development options becoming less viable.

The researcher interprets the findings of this research valuable for leaders to think about change differently. To substantiate the main research question identifying and managing the impact of NeuroLeadership during organisational change; firstly think about *people* differently — not as commodities to be hurried and pushed around but as sources of real and powerful competitive advantage. A second step is to see *change* differently — not just as a perpetual crisis, but as an opportunity to be better prepared and equipped to manage organisational shakeups as a normal part of doing business, and as an opportunity to personally develop and grow. When

faced with organisational change, there will be those who immediately see change as positive and actively embrace it in anticipation of the rewards that follow. Others, initially fearing that not changing is a greater threat, will also accept change. However, when managing change, we also deal with personality types who reject change because they perceive it as a greater threat to their status quo or because internal conflict and uncertainty inhibits them from accepting change. The researcher is of the opinion that the active ingredient in facilitating change is supporting others to generate their own insights about how to move forward. Insight matters in change conversations because the moment of insight changes the brain in a way that linear problem-solving does not. Interpreting the responses from sub research question 1: How does organisational change impact staff performance, 2: How NeuroLeadership abilities can be enhanced to improve staff performance during organisational change and sub research question and 3: How does emotions relate to staff performance during organisational change, most of these ideas discussed above have implications in the field of neuroscience.

5.4. CONCLUSION

Changing employee behaviour is difficult. In fact, changing our own behaviour is hard enough: it's not easy to establish new habits such as doing more exercise, getting more sleep and eating less. Similarly, it's difficult to change organisation's make-up, shift organisation culture, establish a collaborative culture and change the way leaders communicate. The idea of using neuroscience in change management and leadership communication has to be one of the most exciting developments witnessed to date. The reality is that changes in work, environment, team, relationships or home trigger neurological and physiological responses that aren't in our control. Resistance is actually a natural reaction that we all experience when facing change, whether that change is good or bad, however how can leaders use this knowledge to help their organisations?

- Set the direction – conversation about what's ahead

Understanding the brain's organising principle of minimizing danger and maximizing reward helped managers gain a better appreciation of how difficult change can be for individuals. Wide scale corporate change creates uncertainty and fear – messages

that the brain interprets as threat. The result is employees react with a fear response (fight or flight) and cannot contribute their best thinking (Rock, 2009b).

Organisational change is a complex topic and requires a lot of conceptual thinking about future events – a task that requires a lot of cognitive resources. Managers learned how to help themselves and others get into a more positive mental state (toward state) so they could engage much needed cognitive resources for more effective problem solving, creativity, collaboration and innovation. Managers were able to relate organisational change dynamics such as loss of status, high degree of uncertainty about the future, reduced autonomy, erosion of trust and heightened perception of unfairness about decisions related to the change initiative. The result can be an overwhelming threat response from employees and strong resistance to change.

- Get into action: turn strategy into action

Successful organisational change requires that employees create new mental maps for how to move forward with a fresh perspective. In change conversations, the goal is to teach managers how to help employees think in new ways by skilfully facilitating insight in others when faced with challenging situations or problems rather than simply “telling” direct reports the answers. Although a manager’s role is to share important information to set the direction during change, he/she can build commitment and create alignment by facilitating conversations that invite employees to think about the future for themselves – filling in the gaps and connecting to where they are going and what it might mean for them personally. The responses for all the respondents in the survey questionnaire support sub research question 1, where it is asked how to effectively engage the support and creativity of an organisation’s employees at the moment these attributes are most needed during an organisational change.

The active ingredient in facilitating change is supporting others to generate their own insights about how to move forward. Insight matters in change conversations because the moment of insight changes the brain in a way that linear problem-solving does not (Ludmer, Dudai & Rubin, 2011). It was shown that learning through insight is also more memorable than non-insight. New networks are created in the

brain that help us see a situation in a totally new way. Because of the burst of energy and the satisfaction of solving a problem on your own, insight creates a greater sense of ownership of the idea as well as the motivation to put the idea into action. When managers and employees alike see their way forward in change as a result of their own insights, buy-in and support of the change are more likely to happen.

- Work through challenges: hard conversations

As discussed earlier, the dynamics of organisational change can result in employees feeling quite threatened and resistant to change – just at a time when the organisation most needs creativity and great decision-making from its employees. Managers gained a greater understanding of the role of the limbic system as it tracks emotional responses common in change such as anxiety, fear, anger and uncertainty. The resulting threat response impacts important cognitive capacity since resources such as oxygen and glucose are reduced in the prefrontal cortex (PFC). Reduced functioning happens quickly and in many cases, without conscious awareness (Rock, 2009b). We can certainly continue to make decisions but the brain is drawing on more automatic responses easily accessible to it. The responses for all the respondents in the survey questionnaire also support sub research question 2 and 3 based on the need to create a burning platform atmosphere at work can trigger a limbic response in employees. Instead of motivating people to change in a positive way, a burning platform makes them uncomfortable — thrusting change upon them. In another example, driving change from the top can trigger fear within employees because it deprives them of key needs that help them better navigate the social world in the workplace.

Organisational change constantly presents managers with new situations and challenges that they have not experienced in the past, so their automatic responses under pressure may not be the best solution. Also, when under threat, we take in less information from stimuli around us, so we may be more likely to miss information such as key words spoken to us during change discussions, since our attention is more likely to be focused inward. Threat responses also cause us to err on the side of pessimism as we respond to our environment since the brain is on “heightened alert” for additional danger. The emotional regulation tools outlined in Gross’s (2015) process model for emotional regulation were introduced so that managers could

employ regulation strategies before and after an emotional response kicks in. Emphasis was placed on tools to help with cognitive change: labelling and reappraisal.

- Implement the change: even harder conversations

The conversation framework is designed to structure the thought processes and interactions of a team so that the threat response of a challenging meeting is offset for both the manager and employees during organisational change. Managers learn to actively manage the relevant areas throughout a meeting so that team members are in a “toward” state and actively engaged. The framework guides the manager in how to be a facilitator -- not a driver of a meeting so that team status is built and autonomy is protected. Inviting the group to set meeting expectations, add to agendas and actively contribute their ideas helps create a greater sense of autonomy. The “solution focus” of the meeting framework creates certainty for a team that the conversation has a useful, positive direction. Managers also learn that helping the team generate “stretch” goals can add a just enough “healthy threat” to inspire a team to find ways to work together. In organisational change, teams are often asked to work toward goals that are new to them – ones that they do not have existing brain maps to rely on. Managers can facilitate insights from a group – just as in a one-to-one conversation, so that the team sees a new way forward. New ideas can increase team status as well as generate energy to move the team into setting actions. The framework can be extremely useful for incorporating new team members so that all team members begin to relate to each other as “in-group” (instead of “out-group”) members. In Chapter 4 under sub heading 4.2.1.1 the hypothesis H1 - Does organisational change have an impact on staff performance was analysed and found to be valid to substantiate the sub research question that organisational change does impact staff performance.

- Engage the change: move your team ahead

Giving feedback to others in order to improve performance and facilitate change often results in a strong threat reaction unless handled well during organisational change. Threats to status, autonomy, relatedness and fairness can be easily activated when a manager approaches a feedback conversation by telling an employee what is wrong, and how to fix it. (Dixon, Rock & Ochsner, 2010a).

Focusing on the problem during a feedback conversation can also increase limbic arousal and negatively affecting the cognitive resources available for effective problem-solving. Changing behaviour through feedback is also difficult because of the brain's strong "habit system" which has evolved to conserve energy by reacting to stimuli by drawing on stored past patterns and therefore, resisting change. (Dixon, Rock & Ochsner, 2010b). Participants were introduced to the feedback process of "self-directed feed-forward" (Rock & Page, 2009) which invites the employee to give him/herself feedback first on how to solve a problem or address a performance issue (Dixon, Rock, & Ochsner, 2010a).

Employees are less likely to react defensively if given the opportunity to find their own solutions and raise their own status while doing so. Employees are also more likely to implement actions necessary to change due to increased ownership of generating their own insight about how to move forward. Managers learned that successful self-directed feed-forward requires them to use emotional regulation techniques to inhibit the strong desire to give a solution to the employee and manage the SCARF domains to create a toward state in the conversation. The researcher is of the opinion that the active ingredient in facilitating change is supporting others to generate their own insights about how to move forward. Insight matters in change conversations because the moment of insight changes the brain in a way that linear problem-solving does not. Emotional regulation is one of the most important elements for managers in today's stressful and complex business environment – especially during times of wide scale organisational change and this was substantiated by the research findings in Chapter 4 under sub heading 4.2.1.2 where the hypothesis H3 – Does emotions relate to staff performance during organisational change was analysed?

As a result of self-directed feed-forward, chances of change improve when an employee identifies a goal and creates the goal statement in an "if-then" format; an implementation intention. Implementation intentions give the brain a very specific cue to scan for – "If I find myself getting frustrated in a meeting" – and a very specific action to take – "I will take two deep breaths before sharing my thoughts." "By forming an implementation intention, the mental image of the specified situation or cue becomes highly activated and more readily accessible". A more general goal

intention to change such as “I will handle my emotions more effectively in meetings” is too abstract for the brain to scan for effectively. The constant monitoring required for a more general goal is taxing to the brain’s resources and may be easily overridden by other distractions such as anxiety or a new short term goal Addas & Pinsonneault, 2015. When managers give authentic positive feedback to an employee, they are highlighting the behaviours they want to see more of.

Acknowledgement is a way of reinforcing new wiring and maps for that person and cueing the brain to “do more of that action.” When a behaviour is new, the brain circuits are fragile until the behaviour is repeated often enough to be hardwired. Acknowledgment can be very useful to help an employee keep attention focused on new ideas and behaviours long enough to make strong neural connections. Acknowledgement of others for how they are growing, learning and challenging themselves can support a growth mind set (Dweck, 2008) that drives engagement and improved performance.

The majority of people are their own “worst critics” and can easily find fault in themselves without the help of their colleagues or managers or the dynamics of organisational change. The result is a noisy brain that may be in a threat state as a result of our problem focus. Even mild threat states interfere with our ability to think and perform at our best. Acknowledgement can be a powerful tool to help managers shift others into a quieter more positive brain state and better thinking. Organisational change can influence four parts of the organisation: strategy, technology, structure, and employees. Organisational leaders must develop multifaceted change strategies to account for affected entities. Khalid and Rehman (2011) noted the frequency of organisational change is increasing. This increase has caused many organisational leaders to interpret change as a continual process to be included in operational strategies. Developing managers with competencies concerning managing during change is an essential for change readiness. Such competencies should include analytical, insightful, influential, emotional, interpersonal, and technical attributes which was analysed in Chapter 4 under sub heading 4.2.1.2 H3 – Does emotions relate to staff performance during organisational change?

The researcher advises that organisations work on a new organisational change model, one that takes into account how successful change functions in a modern organisation, where work is conceptual, creative, and relational, and talent is portable. Keep in mind that there is no accepted general theory of change but rather traditional “best practice” clusters around a series of activities that have contributed to the continuing poor performance of change initiatives. These include:

- Perpetual under preparation: change is always dreaded and a surprise to employees
- A perceived need to “create a burning platform”: meant to motivate employees via expressed or implied threat
- Leading change from the top of the organisation down: only a few individuals are actively involved in the change and either under communicate or miscommunicate with others

Most of these ideas have implications on this study. For instance, the need to create a burning platform atmosphere at work can trigger a limbic response in employees. Instead of motivating people to change in a positive way, a burning platform makes them uncomfortable — thrusting change upon them. In another example, driving change from the top can trigger fear within employees because it deprives them of key needs that help them better navigate the social world in the workplace. The responses for all the respondents in the survey questionnaire support sub research question 1, where it is asked how to effectively engage the support and creativity of an organisation’s employees at the moment these attributes are most needed during an organisational change.

The researcher advises the following to be used by leaders (also as change agents), HR managers and managers of an organisation:

1. Build awareness of neuroscience and change

If leaders and employees understood the impact of change on the brain, they could plan and implement change in a more constructive, “brain-friendly” way. This

would mean organisations would be far more likely to keep employees in a positive toward state while going through change. Every leader needs to understand neuroscience and its implications for work so the first step is to build awareness.

2. Provide a “language” that resonates with business leaders

Another great benefit is that neuroscience provides a “language” for talking about employee engagement and change management that is acceptable to even the most hard-nosed leaders. Neuroscience provides a means of talking about change that enables leaders to see that communication, empathy and involvement have a direct impact on people’s ability to think at their best and deliver.

3. Planning employee engagement at a macro level

Equipped with knowledge about neuroscience, leaders can plan every aspect of work to ensure employees are focused and performing well. Understanding the brain raises all sorts of questions about how work is planned, the physical work environment, flexibility, and so on. Neuroscience is providing new research and insights on areas such as what influences employees (people), how to set goals that really stick and cross-cultural working. It provides a scientific basis that could lead to a better understanding of employee engagement, which is all about being in a toward and focused state.

4. Planning at a micro level – leader and manager workshops

Neuroscience can also be applied at a more local level. Equipping leaders with knowledge of neuroscience means that they can apply it in their day-to-day work. Leaders can see the physiological advantages of planning time together as a team (Relatedness and Empathy), consulting employees on certain decisions that affected them (Autonomy and Fairness), regular communication (Certainty) and learning and development (Status). With the brain in mind, they can also apply the learning to imminent activities. Take performance management discussions, for example. It could be argued that appraisals send most people into a threat state – how does the phrase “Let me give you some feedback” make you feel? Keeping

neuroscience front-of-mind can help leaders plan how they could shift the experience to being one that creates a toward state.

5. A different way of rewarding people

In these economically tough times, neuroscience also provides food for thought on how organisations can reward employees beyond the usual financial incentives. By identifying what the brain finds rewarding – intrinsic motivators – organisations can look at how else they can recompense people by providing a more rewarding brain-friendly day. Various parts of the brain are activated when we are rewarded and, in particular, the area called the ventral striatum. Neuroscience reveals that money is not the only thing that activates the ventral striatum: there's large amount of overlap between how the brain responds to monetary and "social reward". These social rewards include being given positive feedback, feeling that people are being treated fairly by their manager and the organisation, getting public recognition and being trusted.

As a field, neuroscience may still be in its infancy but already it's providing hugely valuable insights as to how people can work better, stay focused and collaborate. For anyone who cares about their organisation and enabling employees to do great work, it's an area to watch. Everybody benefit from understanding how the brains work. Leaders no longer have to take researchers' word for it; science is providing hard evidence as to why the brains need communication, involvement and empathy.

5.5 SUMMARY OF THE CHAPTER

In this chapter the research findings that were reviewed in Chapter 4 has been integrated with the theories derived from the relevant literature from Chapter 2 and also gave the reader a detailed understanding of NeuroLeadership and its impact during organisational change. In the next chapter the Précis, Implications and Recommendations will be highlighted and discussed.

CHAPTER 6

PRECIS, IMPLICATIONS AND RECOMMENDATIONS

6.1. INTRODUCTION

How does one conclude a quantitative study?

Collis and Hussey (2014) believes that a quantitative research method approach will facilitate in comparing similar studies easily with more accuracy and that helped the researcher in measuring and managing the variables while providing assistance in the collection of descriptive data .

The researcher followed Collis and Hussey (2014) broadly. Firstly, the researcher provides a synopsis of the study in this chapter. Secondly, he presents the key implications and contributions of the study. Thirdly, the study's key short coming are demarcated. Finally he presents recommendations that are believed to merit both scholars and practitioners' attention. The researcher concludes with a few personal reflections.

6.2. PRECIS

In **Chapter 1**, the researcher contextualised the study by providing a brief background, explaining the purpose and objectives, discussing the relevance of the study, and outlining its expected contributions.

In **Chapter 2** the researcher reviewed existing literature on NeuroLeadership and Organisational change and what impact NeuroLeadership could have on employees during organisational change.

In **Chapter 3**, the researcher used the quantitative research method to help produce data in statistical form that was converted to numbers by using a three part structured questionnaire. Methods of data collection and analysis were explained.

In **Chapter 4** the researcher used regression analysis methods using Statistical Package for Social Sciences (SPSS) tool to substantiate the stated hypotheses in chapter 3 and discussed the findings.

In **Chapter 5** the researcher gave and a more in-depth interpretation of NeuroLeadership and Organisational Change was discussed based on the findings in Chapter 4.

6.3. KEY IMPLICATIONS OF THE RESEARCH FINDINGS

Success is not possible without changing the day-to-day behaviour of people throughout the organisation. But changing behaviour is hard, even for individuals, and even when new habits can mean the difference between life and death. In many studies of patients who have undergone coronary bypass surgery, only one in nine people, on average, adopts healthier day-to-day habits. The others' lives are at significantly greater risk unless they exercise and lose weight, and they clearly see the value of changing their behaviour. But they do not follow through (Ringleb & Rock, 2008). So what about changing the way a whole organisation behaves? The consistently poor track record in this area tells us it's a challenging aspiration at best.

During the last two decades, scientists have gained a new, far more accurate view of human nature and behaviour change because of the integration of psychology (the study of the human mind and human behaviour) and neuroscience (the study of the anatomy and physiology of the brain). Imaging technologies such as functional magnetic resonance imaging (fMRI) and positron emission tomography (PET), along with brain wave analysis technologies such as quantitative electroencephalography (QEEG), have revealed hitherto unseen neural connections in the living human brain. Advanced computer analysis of these connections has helped researchers develop an increasing body of theoretical work linking the brain

(the physical organ) with the mind (the human consciousness that thinks, feels, acts, and perceives) (Rock & Cox, 2012).

The implications of the current research are particularly relevant for organisational leaders. It is now clear that human behaviour in the workplace doesn't work the way many executives think it does as per the research findings in Chapter 4 under headings 4.2.1.1 to 4.2.1.3. That in turn helps explain why many leadership efforts and organisational change initiatives fall flat.

The researcher is also of the opinion that the following implications have a significant impact on NeuroLeadership development.

Managing organisation-wide change: In order to deliver successful reorganisation, it has to be designed effectively. The research confirms that organisations that implement cohesive programmes of complementary change across organisation structures, business processes and support systems achieve biggest improvements in performance terms. Common practice reflects more piecemeal change in reorganisations with little attention being paid to aligning changes in, for example, career and reward structures with wider organisation change.

Project- and people-centred reorganising: Striking the balance between applying a clear focus and discipline and managing the people aspects is critical to successful reorganisation. Current practice suggests that there is scope to improve both project and people management capability in the reorganisation process.

Effective leadership: One of the key influences shaping and influencing the nature and conduct of reorganisation is the experience of those in senior management, in both their current and previous enterprises. The critical role played by senior management teams in reorganisations raises an important challenge – how can they raise their capacity to meet the challenge of leading such complex change?

Learning from others: Comparatively few organisations report that ideas and experiences have come from sources other than their own organisations and their own employees. Learning from external consultants, seminars and courses are

reported as significant in only between a third and a quarter of organisations (Nicholas, *et al.*, 2013). Learning from outside is recognised as a lever for developing practice for future reorganisations. CEOs in particular report the perceived value of benchmarking with other organisations in the future.

Managers who understand the recent breakthroughs in cognitive science can lead and influence mindful change: organisational transformation that takes into account the physiological nature of the brain, and the ways in which it predisposes people to resist some forms of leadership and accept others. This does not imply that management of change or anything else is a science. There is a great deal of art and craft in it. But several conclusions about organisational change can be drawn that make the art and craft far more effective. These conclusions drawn from research undertaken by David Rock in 2012 would have been considered counterintuitive or downright wrong only a few years ago. For example:

- **Change is pain.** Organisational change is unexpectedly difficult because it provokes sensations of physiological discomfort.
- **Behaviourism doesn't work.** Change efforts based on incentive and threat (the carrot and the stick) rarely succeed in the long run.
- **Humanism is overrated.** In practice, the conventional empathic approach of connection and persuasion doesn't sufficiently engage people.
- **Focus is power.** The act of paying attention creates chemical and physical changes in the brain.
- **Expectation shapes reality.** People's preconceptions have a significant impact on what they perceive.
- **Attention density shapes identity.** Repeated, purposeful, and focused attention can lead to long-lasting personal evolution.

6.4. CONTRIBUTIONS OF THE STUDY

6.4.1 Theoretical contribution

The research contributes to the theoretical debate on whether or not NeuroLeadership could have an impact during organisational change to sustain a competitive advantage through, discovering which NeuroLeadership abilities can improve staff motivation and performance. This research is also the first of its kind in New Zealand. Due to the fact that NeuroLeadership is merely 8 to 9 years in “existence” very few studies have emerged from NeuroLeadership and therefore there is a limited amount of research resulting in a limited amount of literature available. This research reports on the impact of NeuroLeadership during organisational change which contributes to the body of knowledge and fills in part the gap in literature on this topic.

6.4.2 Methodological contribution

For an organisation to sustain a competitive advantage after organisational changes, it is vital that the organisation incorporate essential NeuroLeadership abilities to develop organisational competencies to optimise staff performance. Therefore this research is useful in expanding the status of quantitative research methodology in a specific area and is filling the gap by explicating specific approaches, and by introducing and illustrating the appropriateness and value of this methodology.

6.5. LIMITATIONS OF THE STUDY

While every attempt was made to ensure rigour in this study, there were some limitations. These are discussed in this section, along with additional suggestions for future research that may overcome these limitations.

6.5.1 Sampling

The research methodology used assumed that employees answered the surveys willingly and honestly. The researcher has no evidence to suggest that this might be otherwise. However, if there was a low level of trust in the research organisation, employees may have been suspicious about the questionnaire and its intentions. As a result, it is possible that only those employees who have a high degree of workplace trust participated in the research, resulting in a sample that is not representative of the population. Therefore, the generalisability of the study may have been influenced.

However, every attempt was made to ensure participant confidence in the study's confidentiality. These attempts included a pilot study, to confirm whether the necessary sense of confidentiality was imparted in the covering email and in the online process, and a multi method approach for data collection. Future researchers should consider repeating this approach to reduce the likelihood of sampling bias when researching workplace trust.

6.5.2 Confidentiality

Web-based surveys' return rate is usually much lower than paper-based surveys (Hughes, 2012). However, for the reasons described in chapter 4, a web-based survey methodology was used for this study using a two-tier process to encourage participation. Potential non-managerial participants were emailed a request to participate in the research by their immediate manager. It was hoped that this would improve the response rate. However, it is possible that some employees may have questioned the confidentiality of the survey because their immediate manager was one of the targets.

6.5.3 Sampling procedure and sample size

The sample size (N = 91) does not allow for the study findings to be generalised to the entire population of the research organisation. In addition, the current research used a nonprobability sampling method in the form of convenience sampling and, as a result, certain sub-groups may have been under-presented. Future research should attempt to solicit a larger sample. If a future study seeks to generalise the results it should use a different sampling procedure. It is suggested that random stratified sampling, using paper-based surveys (which could perhaps have a higher response rate) (Hughes, 2012), may produce a greater percentage return and may be more representative of the organisation.

Although a larger sample would allow for generalisability to the research organisation, the current study nevertheless found comparable reliability scores for the variables and their dimensions when compared with previous research. This research may therefore not be generalisable, but it is consistent with previous studies.

6.5.4 Research paradigm

There were many benefits to using the quantitative approach in this study, as described in Chapter 3. However, the limitations of this methodology mean that it is difficult to interpret the sample's experience of their position in organisation, lessening the usefulness of the research for the research organisation. Future researchers should consider using triangulation, that is, multiple methods and observers to overcome the deficiencies of each (Hughes, 2012), rather than a purely quantitative methodology. This may help them to understand the sample's experiences of their position in organisation, allowing for interpretation of contextual data.

6.6. RECOMMENDATIONS TO LEADERS AND ORGANISATIONAL CHANGE MANAGERS

The research that has been undertaken for this thesis has highlighted a number of topics for leaders and change managers to better understand NeuroLeadership and to find ways to improve the impact of organisational change on employee performance. The distinct value-add of this research project is the recommendations below:

- **Understanding the brain's organising principle** of minimizing danger and maximizing reward will help managers gain a better appreciation of how difficult change can be for individuals. Organisational change is a complex topic and requires a lot of conceptual thinking about future events – a task that requires a lot of cognitive resources. Managers will learn how to help themselves and others get into a more positive mental state (to ward state) so they could engage much needed cognitive resources for more effective problem solving, creativity, collaboration and innovation. Managers will be able to relate organisational change dynamics such as loss of status, high degree of uncertainty about the future, reduced autonomy, erosion of trust and heightened perception of unfairness about decisions related to the change initiative.
- Successful organisational change requires that employees **create new mental maps** for how to move forward with a fresh perspective. In change conversations, the goal is to teach managers how to help employees think in new ways by skilfully facilitating insight in others when faced with challenging situations or problems rather than simply “telling” direct reports the answers. Although a manager's role is to share important information to set the direction during change, he/she can build commitment and create alignment by facilitating conversations that invite employees to think about the future for themselves – filling in the gaps and connecting to where they are going and what it might mean for them personally.

- The active ingredient in facilitating change is **supporting others** to generate their own insights about how to move forward. It was shown that learning through insight is also more memorable than non-insight. New networks are created in the brain that help us see a situation in a totally new way. Because of the burst of energy and the satisfaction of solving a problem on your own, insight creates a greater sense of ownership of the idea as well as the motivation to put the idea into action. When managers and employees alike see their way forward in change as a result of their own insights, buy-in and support of the change are more likely to happen.
- Organisational change constantly presents managers with **new situations and challenges** that they have not experienced in the past, so their automatic responses under pressure may not be the best solution. Also, when under threat, we take in less information from stimuli around us, so we may be more likely to miss information such as key words spoken to us during change discussions, since our attention is more likely to be focused inward.
- **The conversation** framework is designed to structure the thought processes and interactions of a team so that the threat response of a challenging meeting is offset for both the manager and employees during org change. Managers will learn to actively manage the relevant areas throughout a meeting so that team members are in a toward state and actively engaged. The framework will guide the manager in how to be a facilitator -- not a driver of a meeting so that team status is built and autonomy is protected. Inviting the group to set meeting expectations, add to agendas and actively contribute their ideas helps create a greater sense of autonomy.
- The **“solution focus”** of the meeting framework creates certainty for a team that the conversation has a useful, positive direction. Managers will also learn that helping the team generate “stretch” goals can add a just enough “healthy threat” to inspire a team to find ways to work together. In organisational change, teams are often asked to work toward goals that are

new to them – ones that they do not have existing brain maps to rely on. Managers can facilitate insights from a group – just as in a one-to-one conversation, so that the team sees a new way forward. New ideas can increase team status as well as generate energy to move the team into setting actions.

- **Giving feedback** to others in order to improve performance and facilitate change often results in a strong threat reaction unless handled well during organisational change. Threats to status, autonomy, relatedness and fairness can be easily activated when a manager approaches a feedback conversation by telling an employee what is wrong, and how to fix it. Managers will learn that successful self-directed feed-forward requires them to use emotional regulation techniques to inhibit the strong desire to give a solution to the employee and manage the SCARF domains to create a toward state in the conversation.

6.7. FINAL STATEMENT

Neuroscience research is clearly expanding rapidly with the growth in brain imaging technology. As research in neuroscience expands, the linkages with leadership and leadership development are providing fertile grounds for the development of better and better tools and techniques that allow us to increase the managerial and leadership productivity and effectiveness. It is important that we begin to both identify these linkages and provide input to neuroscientists as to the kind of research that would be most beneficial to leaders and leadership development.

The neuroscience of leadership, feedback, conflict management, storytelling, and issue resolution are examples of the broad-based research articles that are likely to have the greatest impact on driving more and more specific research in those areas. While significant and impressive progress has been made in NeuroLeadership, it is becoming increasingly evident that social psychologists, neuroscientists, leadership theorists, and leadership practitioners need to be working together more closely to build theories and conduct sophisticated empirical studies to

continue growing in their respective fields where they interrelate. Cooperation and collaboration for leaders are particularly needed in the areas of emotion, emotion regulation, and culture where overlap is most pronounced and the need for practitioner tools the most significant.

A functional co-mingling of concepts ranging from definitions to functioning models amongst these disciplines would serve to focus the usefulness of those tools and have the beneficial effect of accelerating 'time-to-market'. Leaders are under social magnification; everyone is watching them, looking for meaning, and even taking on their emotions non-consciously. All social interactions for a leader are meaningful and must be done with care. This is why it is so important to take advantage of psychology and social neuroscience research and to be aware of implicit or unconscious influences on behaviour, especially social signals and biases.

In today's world of constant, complex change, organisational leaders who react rapidly and responsibly are successful. The organisational leaders who anticipate and invent the future are even more successful because they are the leaders in their organisations and their industries. The organisations that do not survive are those that are led by people who fail to invent the future or even adapt to change.

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APPENDICES

Appendix – 1 Research Consent Form



Information for participants

Research Project Title: Identifying and managing the impact of NeuroLeadership during organisational change.

My name is Casper Badenhorst. I am completing a Master of Business at Unitec, in Carrington Road, Mt Albert. For my thesis, I am researching the impact of NeuroLeadership during organisational change.

I would appreciate it if your organisation is willing to participate in this research. It would take not more than 45 minutes of your time; however your participation would contribute to the depth of knowledge in my research. Please read on for further detail.

What we are doing

The aim of this research is to help management, staff and organisation's to get an insight on the various situations that have an impact on them during organisational change. This study will focus on methods on how to improve leadership effectiveness within organisation's and focuses on how individuals make decisions and solve problems, collaborate with and influence others, and facilitate change; that is, NeuroLeadership engages the "people," as opposed to the functional side of business.

What is NeuroLeadership?

NeuroLeadership is an emerging field of study connecting neuroscientific knowledge with the fields of leadership development, management training, change management, consulting and coaching.

The objectives that will be investigated during the research are the following:-

- To theoretically study organisational change management.
- To obtain information about how organisational change relates to staff performance.
- To theoretically study NeuroLeadership and motivation and how to apply it in the organisation.
- To determine methods by which NeuroLeadership abilities can be enhanced to improve staff performance.

What it will mean for you

This research would help attain a better understanding of the various factors that can enhance NeuroLeadership within an organisation especially during organisational change and

how to improve staff performance. This research would also help in studying the new emerging field of NeuroLeadership and to explore the factors related to NeuroLeadership associated with organisational change and to provide feedback to those organisation's to further understanding of this new and emerging field.

If you agree to participate, you will be asked to sign a consent form. This does not stop you from changing your mind if you wish to withdraw from the project before you complete the survey.

Your name and information that may identify you will be kept completely confidential. All information collected from you will be stored on a password protected file and only you, the researcher and my two supervisors will have access to this information.

Please note that results may be published beyond the thesis if there is any chance of publication.

Please contact us if you need more information about the project. At any time if you have any concerns about the research project you can contact our supervisor:

My primary supervisor is **Dr Andries Du Plessis**, phone **+64 9 815 4321 X 8923** or email **aduplessis@unitec.ac.nz**

UREC REGISTRATION NUMBER: (2013-1048)

This study has been approved by the UNITEC Research Ethics Committee from (01/09/2013) to (30/06/2014). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162. Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Contact details:

UREC Secretary
Research Office
Building 180, Room 3008
Unitec New Zealand
Private Bag 92025
Auckland

Ph. 815 4321 ext 6162
Email: ethics@unitec.ac.nz



Organisational Consent Form

Research Project Title: Identifying and managing the impact of NeuroLeadership during organisational change.

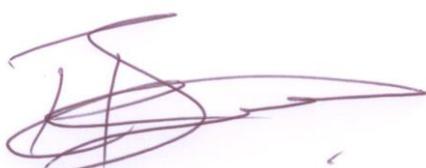
I, **(name)** _____, **(position in organisation)** _____ of **(organisation)** give consent for **Casper Badenhorst** to undertake research in this organisation as discussed with the researcher.

The consent is subject to approval of research ethics application number **2013-1048** by the Unitec Research Ethics Committee and a copy of the approval letter being forwarded to the organisation as soon as possible.

Name:

Signature: Date:

Researcher: **Casper Badenhorst**

Signature:  Date: 6 September 2013

UREC REGISTRATION NUMBER: 2013-1048

This study has been approved by the UNITEC Research Ethics Committee from (01/09/2013) to (30/06/2014). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162. Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Appendix-2: Survey Questionnaire

Introduction

What are we doing?

The researcher is trying to identify and how to manage the impact of NeuroLeadership during organisational change and how it can help with motivating staff that relates to their emotions to improve their performance.

Why are we doing this survey?

The success of any potential implementation of NeuroLeadership will rely heavily on how effectively management and administrations staff contributes to this survey.

How are we doing it?

A theoretical study will be conducted on NeuroLeadership and it will be compared to the standard leadership theories and if accepted by organisations training programmes will be implemented.

The surveys can be anonymous, unless you choose to be individually identified. However, we do need to gather information on such things as age, sex and level in the organisation to ensure that we provide the right support to the right group of people.

If you wish to remain anonymous, please print the attached form out, complete it in pen and post back to 282 Staniforth Road, RD5 Wellsford 0975. Alternatively you can complete the form electronically and send via e-mail to casperb@orcon.net.nz. No record will be kept of which person sent back which reply, if you choose not to include your name on the actual survey.

Please note that due to the tight deadlines, replies received prior to 31 July 2013 will be greatly appreciated

Frequently Asked Questions

Do I have to complete the survey?

No, but if you do, you will be helping the researcher to ensure that the research project is successful.

How long will the survey take?

The questionnaire should take no longer than 20 minutes to complete.

Can I be identified by my reply?

If you complete a paper copy, you cannot be identified and we would not seek to do so. Responses will only be seen by the researcher.

Will the results of the survey be published?

NO.

Will my colleagues have to complete this survey also?

Yes– if the survey is small we cannot identify business areas

Please State the following:-	Age	Category <u>(Management/Administration/)</u>	Level <u>(Junior/Middle/Senior)</u>	Duration <u>of</u> <u>service</u>
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PART 1:

Please complete the following seven questions relating to organisational change by selecting the most relevant option?

1. What was your attitude towards the organisational change before it was accomplished?

- very positive
- positive
- neutral
- negative
- very negative

2. Did you receive enough information the before the change occurred?

- I received enough information.
- I received information, but not enough.
- I did not receive information.

3. I am given enough information to enable me to understand why organisational change needs to happen

- Often
- Sometimes
- Seldom
- Never
- Almost never

4. The organisation communicates with employees regularly when going through change

- Often
- Sometimes
- Seldom
- Never
- Almost never

5. Are you satisfied, how the organisation change was taken care of in general?

- very satisfied
- satisfied
- neutral
- unsatisfied
- very unsatisfied

6. I have the opportunity to comment and ask questions about organisational change before, during, and after it has happened

- Often
- Sometimes

- Seldom
- Never
- Almost never

7. Are you satisfied with the effects on your work and yourself individually?

- very satisfied
- satisfied
- neutral
- unsatisfied
- very unsatisfied

PART 2:

Please use the following likert scale to answer the questions below:-

Mark 1 – If you never feel this way

Mark 2 – If you rarely feel this way

Mark 3 – If you from time to time feel this way

Mark 4 – If you often feel this way

Mark 5 – If you always feel this way

<u>No.</u>	<u>Questions</u>	<u>Rating Scale (1 to 5)</u>
1.	This organisation really inspires the very best in me in the way of job performance.	
2.	I feel very loyal to this organisation.	
3.	I would be willing to accept almost any type of work assignment to stay with this organisation.	
4.	It would take very little change in my present circumstances to cause me to leave this organisation.	
5.	I have a clear understanding of what the organisation expects of me in my current role.	
6.	I do not have good understanding about my responsibilities with respect to my role.	
7.	I feel like I lack the skills to effectively carry out my job.	
8.	I feel that I have been assigned too many responsibilities.	

9.	My role has been reduced in importance.	
10.	I feel secure in my job.	
11.	I feel that the Leadership Team has the right people involved to make this change happen?	
12.	I feel that the decision making is effective in the Leadership Team.	
13.	I feel that my line manager has done all they can to help me understand exactly what is expected of me following the changes to the organisation.	
14.	I feel that my line manager will help me to understand how I can support and adapt to implement the changes needed.	
15.	I believe that management has been at least as honest with bad news as good news about changes to the organisation.	
16.	I am not learning enough in my present role for taking up higher responsibility.	
17.	I do receive the necessary training and support to enable me to do my job more effectively.	
18.	The amount of work I do affects the quality of life I like to maintain.	
19.	My job interferes with my personal life.	
20.	My job does not give me enough time to spend with my family.	
21.	My family and friends complain that I do not spend enough time with them due to the nature of my role.	
22.	The scope of promotion is limited within my role.	
23.	Other employees within my department do not give enough attention and time to my role/position.	
24.	I have not had the right training for my current role.	
25.	I am not able to use my training and expertise in my current role.	

PART 3: - Please complete the following eight questions relating to your leadership abilities by selecting the most relevant option?

1. Several members of your team are in disagreement, and come to you for help. To get started, do you:

- Clarify what they expect of you
- Speak with both parties separately to hear their point of view
- Look for a solution that will suit all parties

- Try to solve it without talking to anyone
- Wish you were in charge so you could tell them what to do

2. Someone is late for a meeting with you. What is your most likely response?

- You are annoyed because you worked hard to be on time for them
- You make sure you have the time, date and place correct
- You wonder what has happened to keep them late
- You wish you had brought your laptop so you could use the time well
- You feel let down by them

3. Your boss has given you feedback that you didn't do well on a major project.

Do you:

- Think the feedback was one-sided
- Ask for more detail around the feedback
- Resolve to run projects your way in the future
- Feel awkward with your boss and avoid them for the rest of the week
- Feel disappointed to have let down your boss

4. It's the first day of your new management job and you are thinking about your new team. The first meeting you schedule is:

- A relaxed 'get to know each other' lunch, with the whole team
- With your boss to find out what's important to them
- With the whole team to clarify expectations
- With HR to compare your salary to the rest of the team
- With each person to find out how they want to be managed

5. You have enrolled in a new training program. Are you:

- Pleased to be increasing your qualifications
- Excited about meeting a new set of people
- Nervous about what might be expected of you
- Worried you might have to do things you do not want to do
- Hoping everyone puts in the same amount of effort

6. Your boss wants to take you out to celebrate a recent win. Do you:

- Feel really pleased to be recognized for your good work
- Think it's great that your boss shares the good fortune
- Hope you get to choose where to go
- Suggest you do something with the whole team instead
- Clarify with your boss exactly what you did that pleased them

7. Your team is working on an important project that is stalled waiting on decisions from other departments. Do you:

- Feel handicapped by all the red tape
- Speak with the other managers to find out more details
- Wish the others understood how much this slows down your team
- Worry about the impact this will have on morale in your team
- Stress about the impression this gives to your credibility

8. You find it hard to connect with some of the younger members of your team.

Do you:

- Ask them how you could work on this together
- Read online to find out some ideas to implement
- Take them out to lunch to find a connection
- Speak to other managers to find out what worked for them
- Give them a pep talk about respecting you as their manager

Note- The survey design and the questions stated above is only a draft representation of the survey questionnaire.